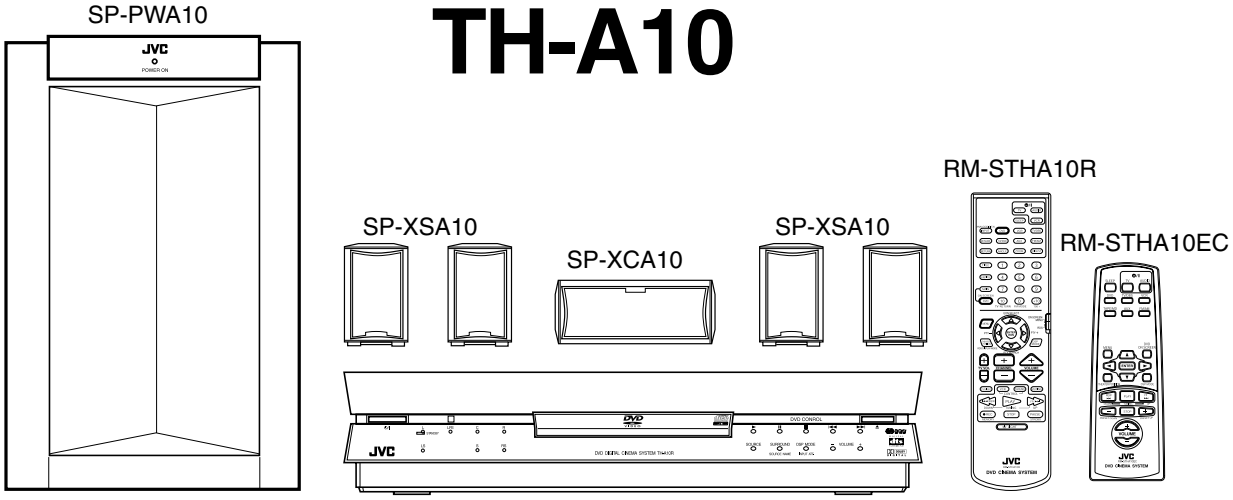
JVC

SERVICE MANUAL

DVD DIGITAL THEATER SYSTEM

TH-A10R
TH-A10



Area Suffix TH-A10R	
B	U.K.
EN	Northern Europe
EE	Russia

Area Suffix TH-A10	
E	Continental Europe

TH-A10R TH-A10	XV-THA10R (DVD player)/XV-TH-A10	
	SP-THA10 (Speaker section)	SP-PWA10 (Powered subwoofer)
		SP-XCA10 (Center speaker)
		SP-XSA10 (Satellite speaker) x 4

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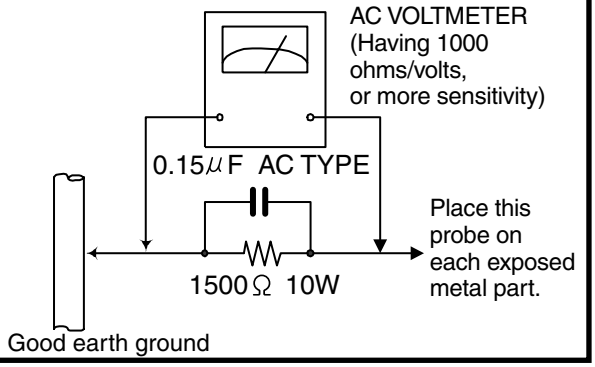
No.20872
Sep. 2000

Safety precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer`s warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage currnet check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet , particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.)
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to eachexposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. voltage measured Any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

1.1. Grounding to prevent damage by static electricity

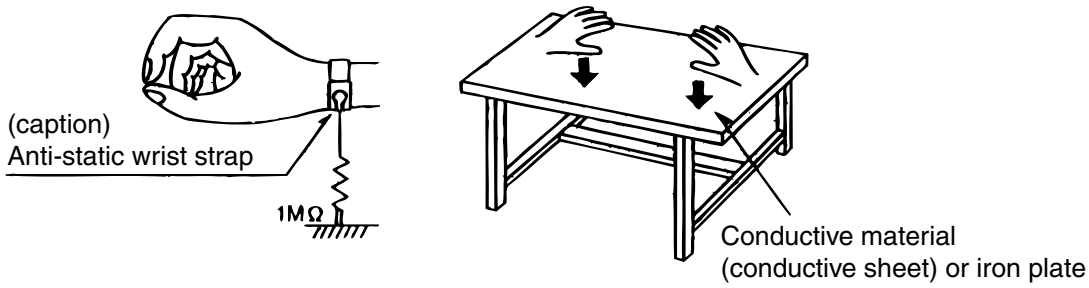
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as DVD players. Be careful to use proper grounding in the area where repairs are being performed.

1.1.1. Ground the workbench

1. Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

1.1.2. Ground yourself

1. Use an anti-static wrist strap to release any static electricity built up in your body.



1.1.3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)

2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

1.2. Handling the traverse unit (optical pickup)

1. Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.

2. Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.

3. Handle the flexible cable carefully as it may break when subjected to strong force.

4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it

Dismantling and assembling the traverse unit

1. Notice regarding replacement of optical pickup

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs to the optical pickup or connected devices.

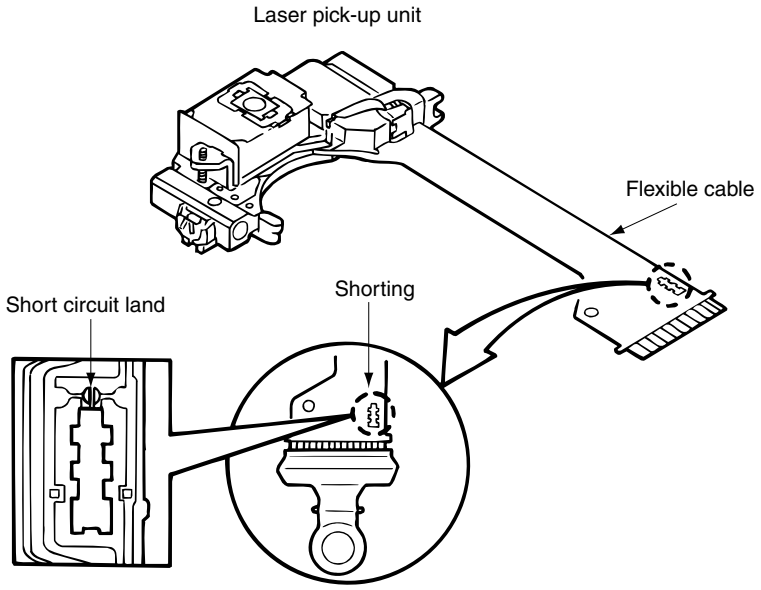
(Refer to the section regarding anti-static measures.)

1. Do not touch the area around the laser diode and actuator.

2. Do not check the laser diode using a tester, as the diode may easily be destroyed.

3. It is recommended that you use a grounded soldering iron when shorting or removing the laser diode.
   Recommended soldering iron: HAKKO ESD-compatible product

4. Solder the land on the optical pickup's flexible cable.
   - Note : Short the land after shorting the terminal on the flexible cable using a clip, etc., when using an ungrounded soldering iron.
   - Note : After shorting the laser diode according to the procedure above, remove the solder according to the text explanation.



Shot with the rclip

Disassembly method

<Main body>

■Removing the top cover

(See Fig.1 and 2)

1. Remove the four screws A attaching the top cover (Use an Allen wrench).

2. Lift up the front part of the top cover to release the two joints a and remove the top cover toward the front.

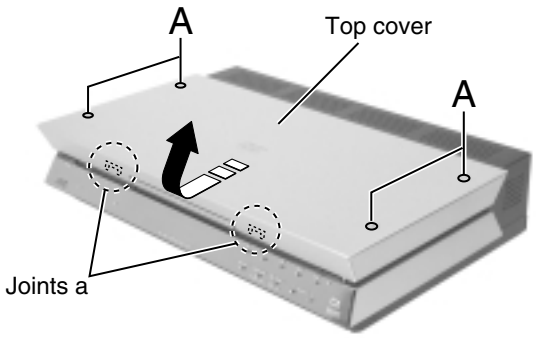


Fig.1

■Removing the rear cover (See Fig. 3)

・ Prior to performing the following procedure, remove the top cover.

1. Remove the four screws B attaching the rear cover on the back of the body. Pull out the rear cover backward.

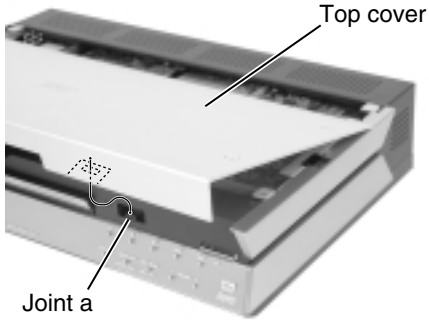


Fig.2

■Removing the right and left side covers

(See Fig. 4 and 5)

・ Prior to performing the following procedure, remove the top cover and the rear cover.

1. Move the left side cover backward to release the five joint hooks b and remove the left side cover outward.

2. Remove the right side cover in the same way.

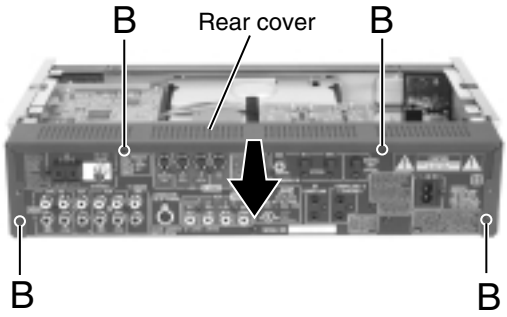


Fig.3

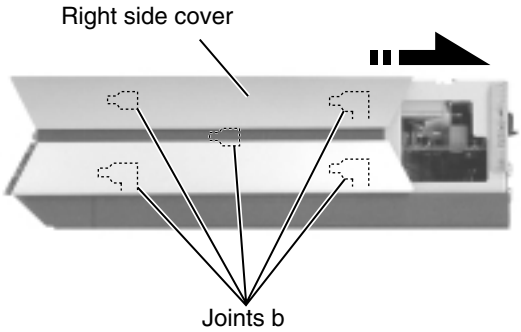


Fig.5

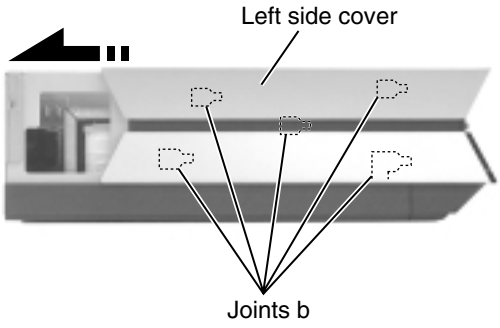


Fig.4

■Removing the front panel assembly (See Fig. 6 to 9)

・ Prior to performing the following procedure, remove the top cover, the rear cover and the side covers.

1. Disconnect the harness from connector CN802 on the main board on the upper side of the body.
2. Remove the two screws C on the upper side of the body.
3. Remove the three screws D on the bottom of the body.
4. Release the five joints c and detach the front panel assembly toward the front.

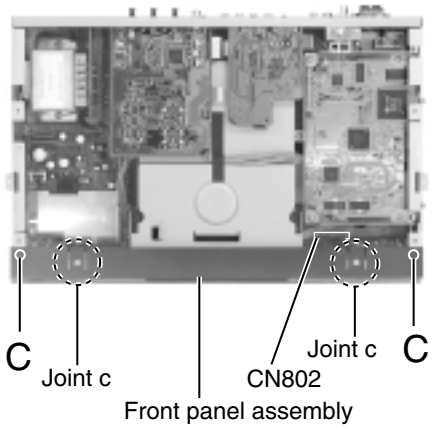


Fig.6

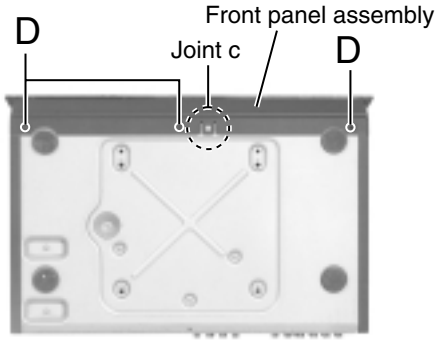


Fig.7

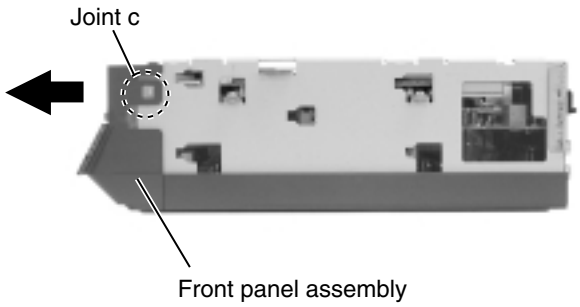


Fig.9

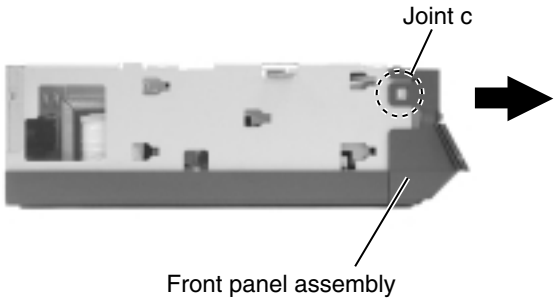


Fig.8

■Removing the right and left corner covers (See Fig.10 and 11)

- Prior to performing the following procedure, remove the top cover, the rear cover, the side covers and the front panel assembly.
- It is not necessary to remove the front panel assembly.

1. Move the left corner cover backward to release the three joint hooks d.
2. Remove the right corner cover in the same way.

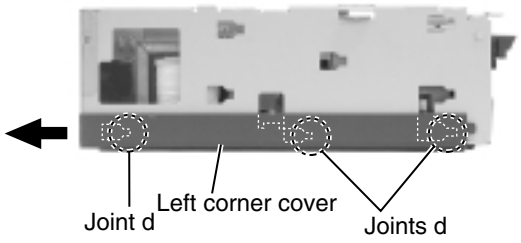


Fig.10

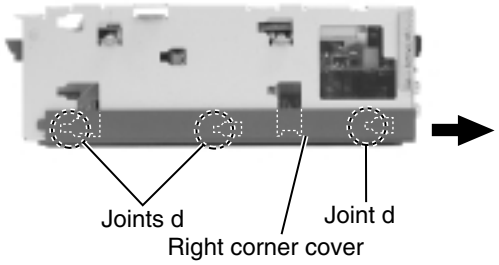


Fig.11

■Removing the rear panel (See Fig.12 to 14)

- Prior to performing the following procedure, remove the top cover and the rear cover.

1. Remove the eighteen screws E and the one screw F attaching the rear panel.
2. Release the two joints e on both sides of the body.

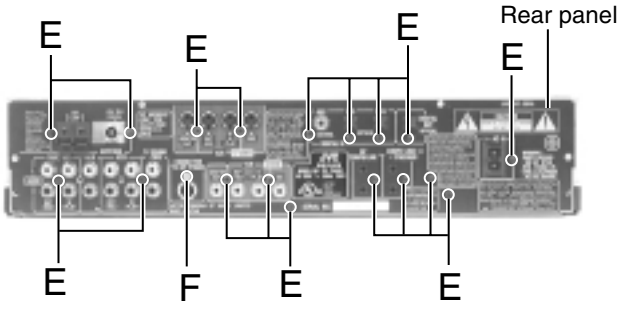


Fig.12

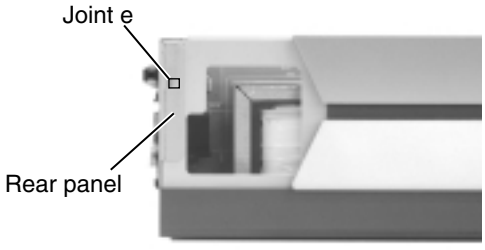


Fig.12

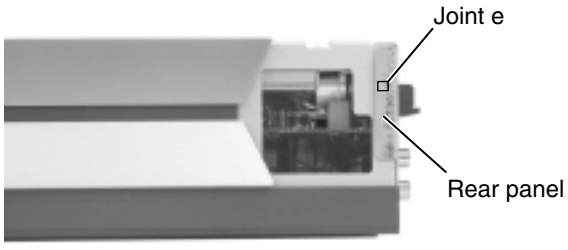


Fig.12

■Removing the DVD servo control board (See Fig.15 to 17)

・Prior to performing the following procedure, remcover and the right side cover.ove the top cover, the rear

1. Remove the three screws G and pull the DVD servo control board case upward.

2. Disconnect the harness from connector CN501 and CN503, and the card wire from CN101, CN103 and CN502 of the DVD servo control board on the underside of the DVD servo control board case.

3. Remove the four screws H attaching the DVD servo control board.

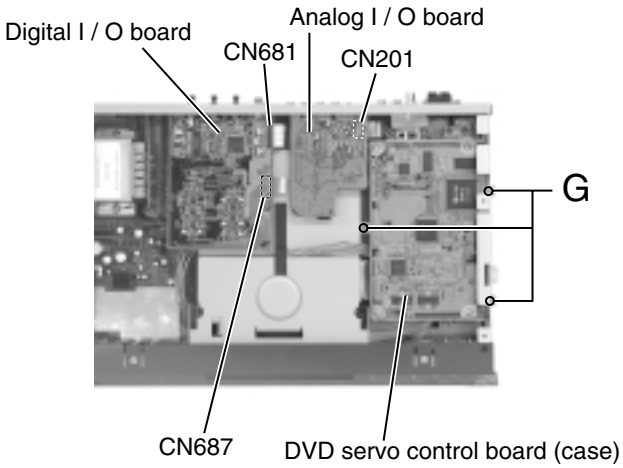


Fig.15

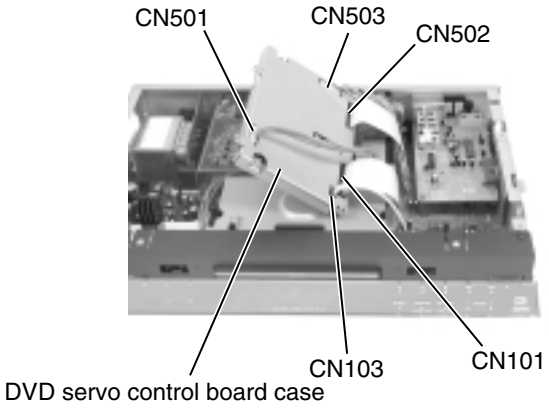


Fig.16

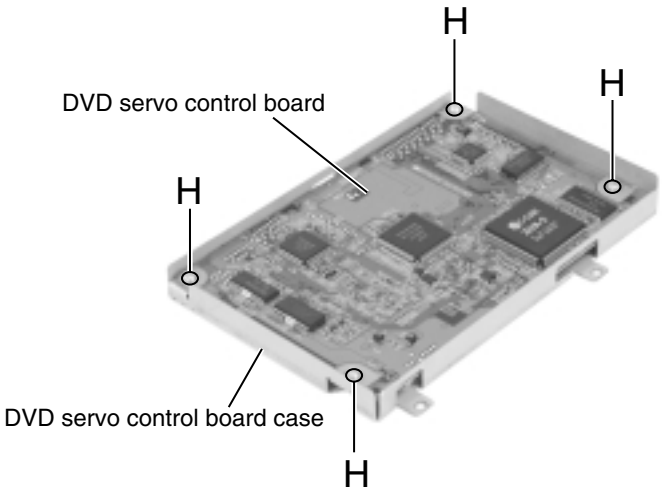


Fig.17

■Removing the analog I / O board / the digital I / O board (See Fig.18 and 19)

・ Prior to performing the following procedure, remove the top cover and the rear cover.

1. Remove the two screws E attaching the analog I / O board on the back of the body.
2. Disconnect the card wire from connector CN201 on the analog I / O board.
3. Remove the four screws E attaching the digital I / O board on the back of the body.
4. Disconnect the card wire from connector CN681 and CN687 on the digital I / O board.

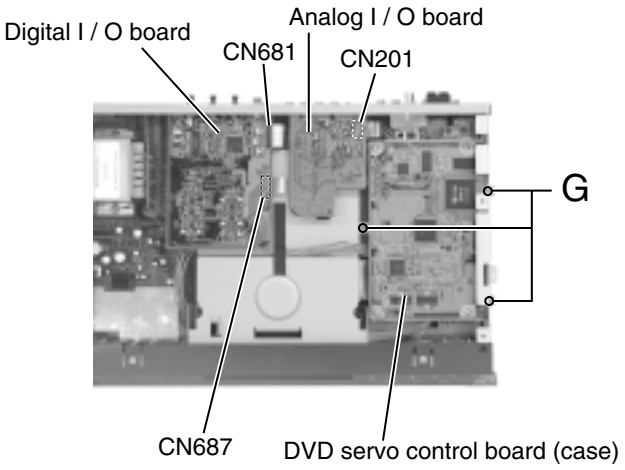


Fig.18

■Removing the tuner board / the sub board (See Fig.20 and 21)

・ Prior to performing the following procedure, remove the top cover, the rear cover and the DVD servo control board case.

1. Remove the two screws E attaching the tuner board on the back of the body.
2. Disconnect connector CN111 on the tuner board from the sub board.
3. Disconnect connector CN131 on the sub board from the main board.

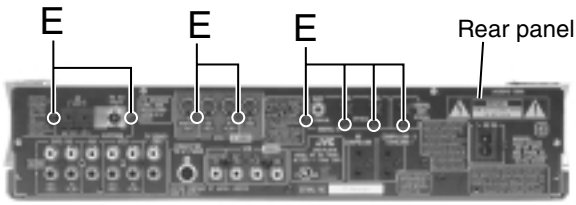


Fig.19

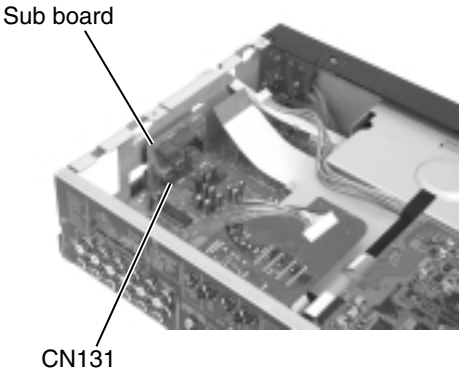


Fig.21

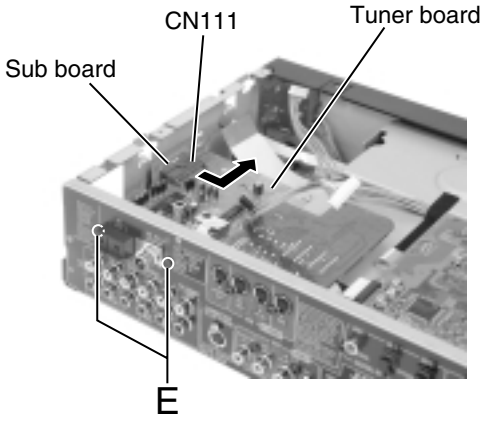


Fig.20

■Removing the DVD mechanism assembly (See Fig.22 and 23)

・Prior to performing the following procedure, remove the top cover, the rear cover, the front panel assembly, the DVD servo control board case, the analog I / O board, the digital I / O board and the tuner board.

1. Disconnect the harnesses from the spacer on the upper side of the DVD mechanism cover.
2. Remove the two screws I and the one screw J attaching the DVD mechanism cover.
3. Remove the two screws K attaching the DVD mechanism assembly.
4. Remove the DVD mechanism assembly upward while pulling it backward.

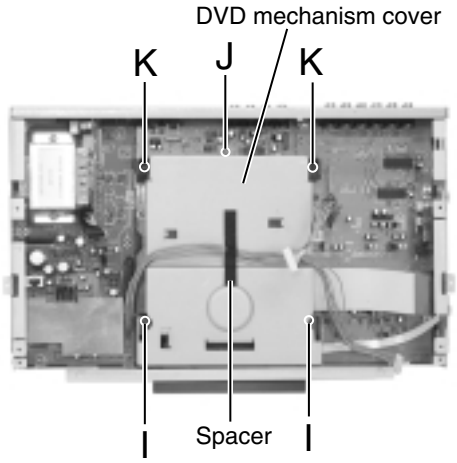


Fig.22

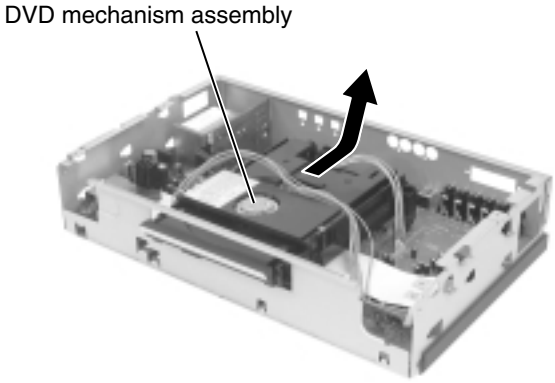


Fig.23

■Removing the power board (See Fig.24 and 25)

・Prior to performing the following procedure, remove the top cover, the rear cover, the front panel assembly, the DVD servo control board case and the digital I / O board.

1. Disconnect the harness from the spacer on the upper side of the DVD mechanism cover.
2. Remove the two screws E attaching the power board on the back of the body.
3. Disconnect the harness from connector CN911 and CN912 on the power board.
4. Remove the four screws L attaching the power board.
5. Disconnect connector CN913 and CN914 of the power board from the main board by pulling out them respectively.

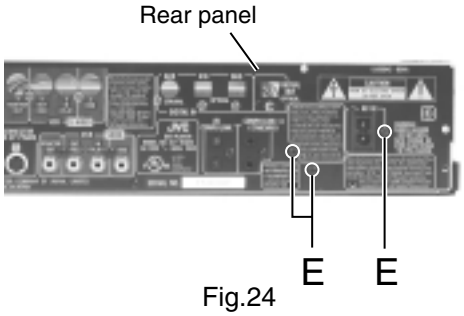


Fig.24

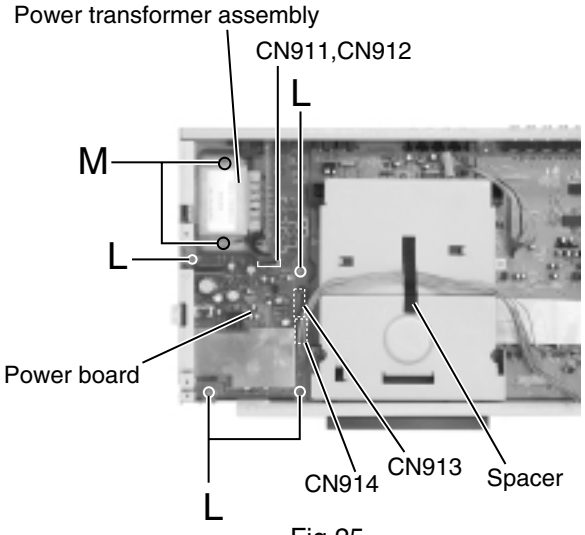


Fig.25

■Removing the power transformer assembly (See Fig.24 and 25)

・Prior to performing the following procedures, remove the top cover and the rear cover.

1. Disconnect the harnesses from connector CN911 and CN912 on the power board.
2. Remove the two screws M attaching the power transformer assembly.
3. Remove the screw E attaching the power transformer assembly on the back of the body.

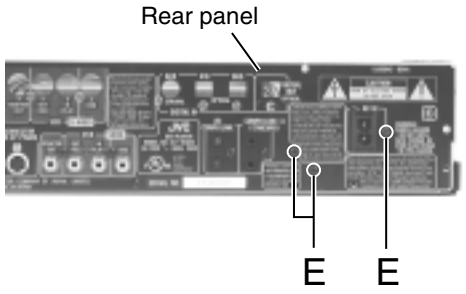


Fig.24

■Removing the main board (See Fig.26)

・Prior to performing the following procedure, remove the top cover, the rear cover, the front panel assembly, the rear panel, the DVD mechanism assembly, the power board and the sub board.

1. Remove the four DVD spacers on the upper side of the main board.
2. Remove the five screws N attaching the main board.

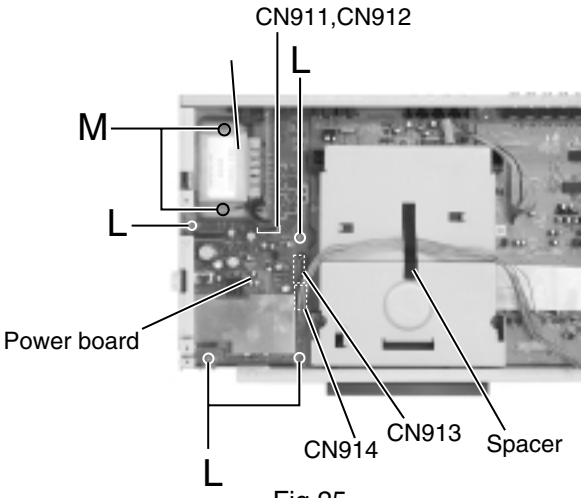


Fig.25

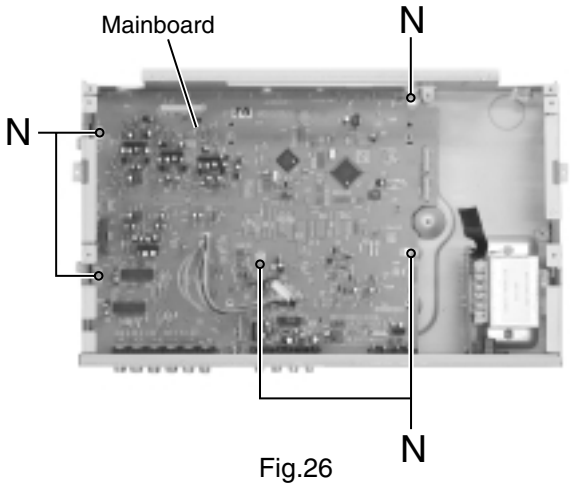


Fig.26

<Front panel assembly>

・Prior to performing the following procedure, remove the top cover, the rear cover, the side covers and the front panel assembly.

■Removing the power switch board (See Fig.27)

1. Dithe harness from connector CN705 on the power switch board.sconnect
2. Remove the three screws O attaching the power switch board.

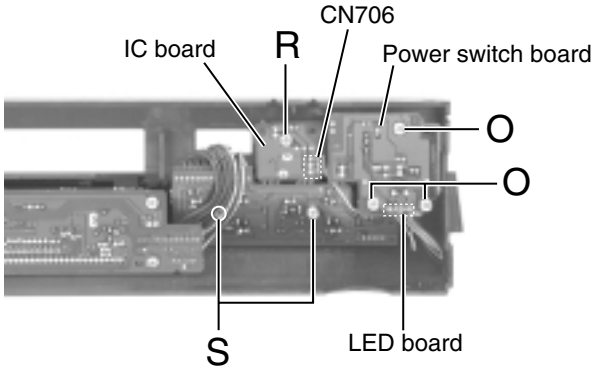


Fig.27

■Removing the eject board (See Fig.28)

1. Disconnect the harness from connector CN702 on the eject board.
2. Remove the three screws P attaching the eject board.

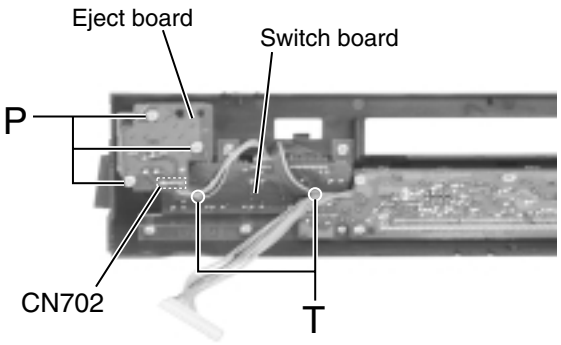


Fig.28

■Removing the LCD board (See Fig.29)

1. Remove the four screws Q attaching the LCD board.
2. Unsolder WA701, WA703 and WA704 on the LCD board.

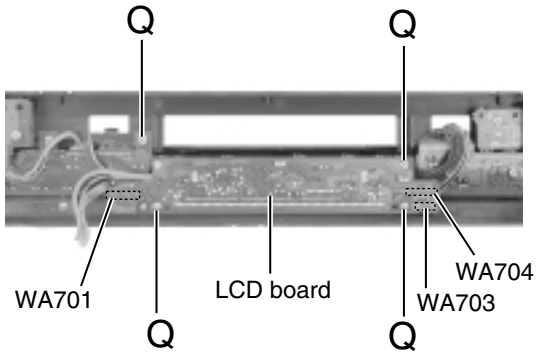


Fig.29

■Removing the IC board (See Fig.27)

1. Remove the screw R attaching the IC board.
2. Disconnect the harness from connector CN706 on the IC board.

■Removing the LED board (See Fig.27)

・Prior to performing the following procedure, remove the LCD board and the IC board.

1. Disconnect the harness from connector CN705 on the power switch board.
2. Remove the two screws S attaching the LED board.

■Removing the switch board (See Fig.28)

・Prior to performing the following procedure, remove the LCD board.

1. Disconnect the harness from connector CN702 on the eject board.
2. Remove the two screws T attaching the switch board.

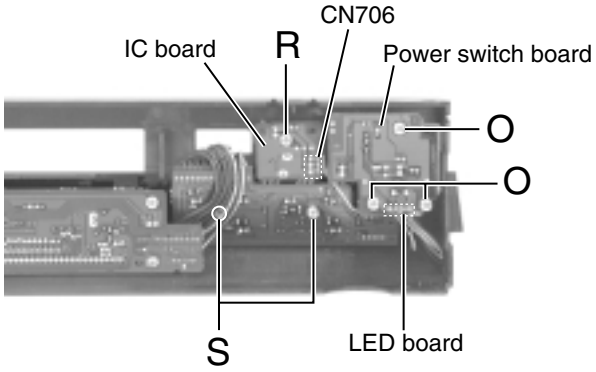


Fig.27

<Removing DVD mechanism unit>

■ **Removing the clamper base** (refer to Figure 1)

o Remove the top cover.

o Remove the DVD mechanism unit.

1. Remove the two screws at A fixing the clamper base.

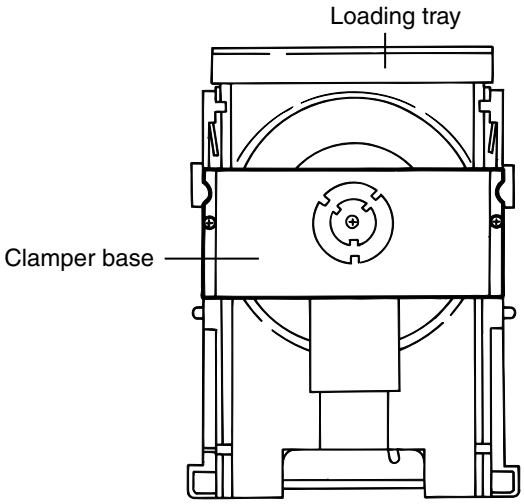


Figure 1

■ **Removing the loading tray** (refer to Figures 2 - 4)

o Remove the clamper base.

1. Turn the up-down cam lever clockwise (in the direction of the arrow in Figure 2) to lower the position of the mechanism.
2. Manually set the loading tray to the fully-open position.
3. Stretch the tray stoppers on both sides of the loading base outward and pull out the tray.

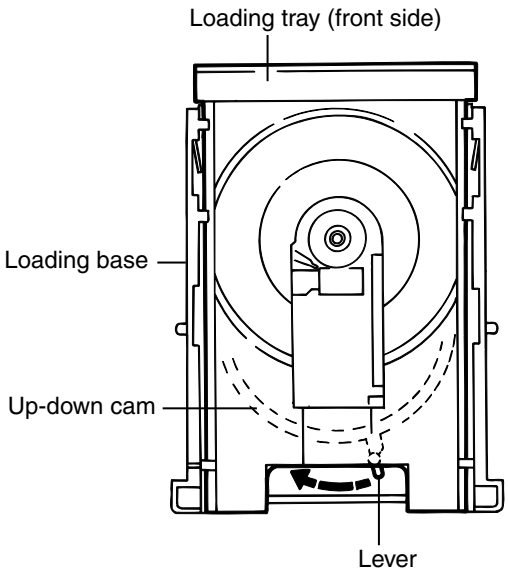


Figure 2

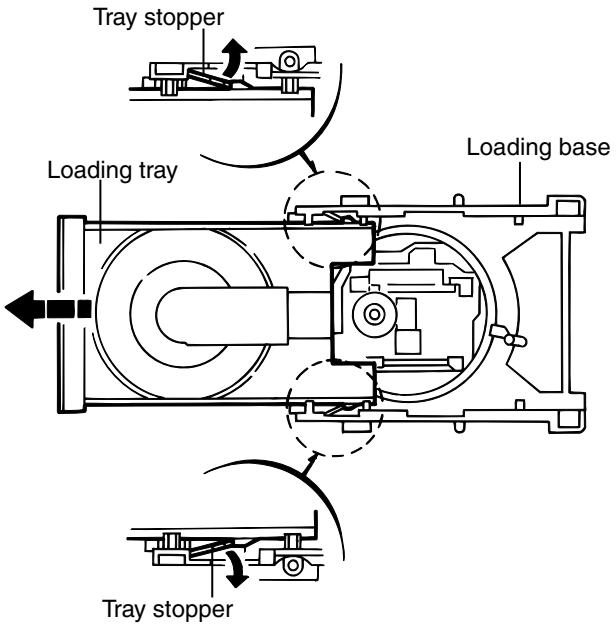


Figure 4

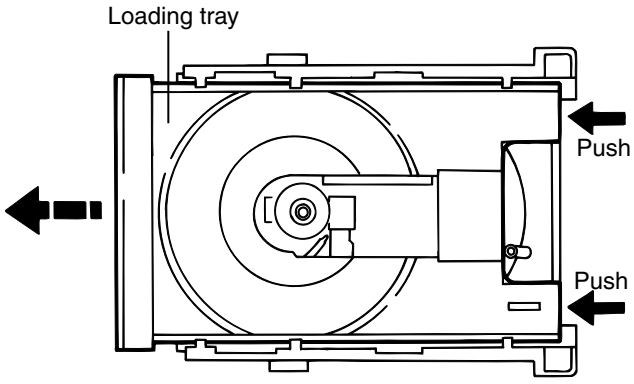


Figure 3

■ **Removing the traverse mechanism unit** (refer to Figure 5)

o Remove the loading tray.

1. Remove the three screws at B fixing the traverse mechanism unit.

■ **Protecting the optical pickup**

o Solder the flexible ground point on the optical pickup when replacing the pickup or before detaching the mechanism control board. When assembling the unit, remove the solder last.

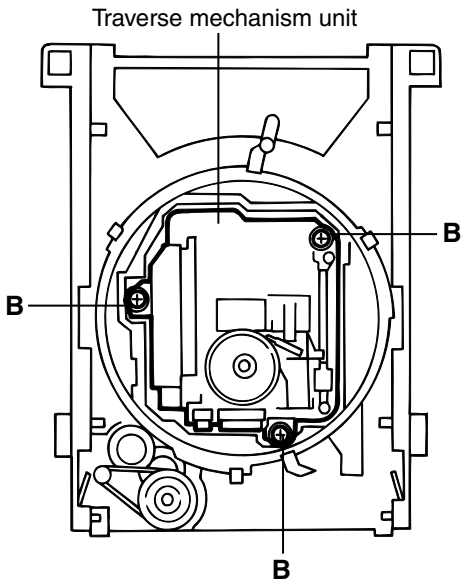


Figure 5

■ **Removing the mechanism control board** (refer to Figures 6 - 7)

o Remove the traverse unit. (Can be detached without detaching the T-mechanism unit.)

1. Remove the two screws at C fixing the mechanism control base from the bottom of the traverse unit.
2. Pull out the CN12 connector and detach the mechanism control board.
3. Remove the card wire from the CN13 connector on the mechanism control board.
4. Pull out the FPC holder from the CN12 connector on the reverse side of the mechanism control board and remove the flexible harness, referring to Figure 7.

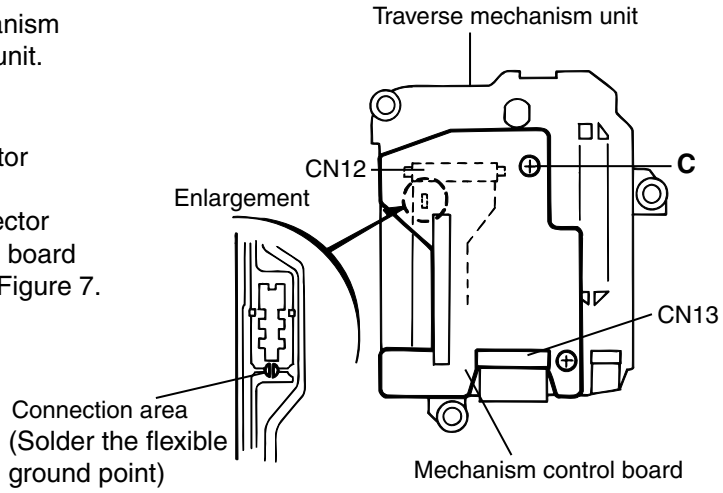


Figure 6

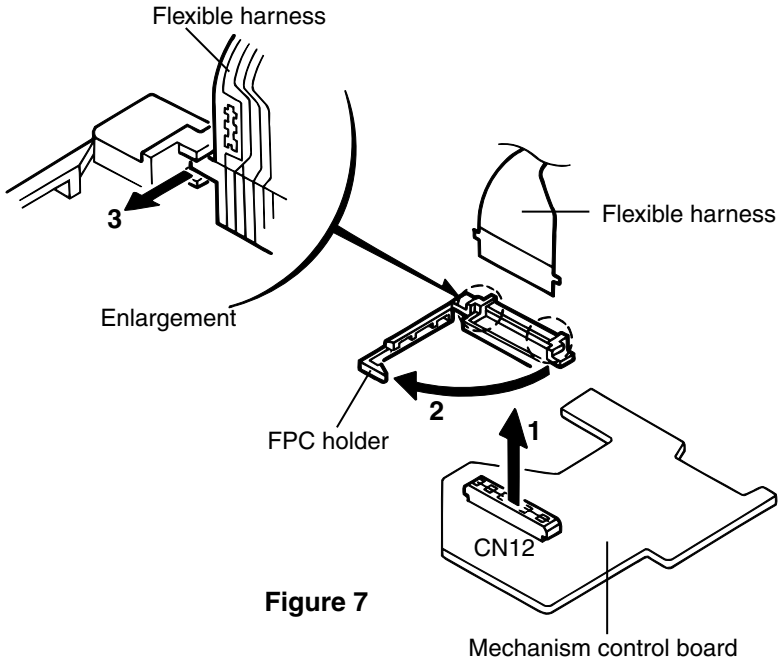


Figure 7

■ **Removeing the turntable and spindle motor assemby** (refer to Figures 8 - 9)

o Remove the traverse mechanism unit.
o Solder the flexible ground point on the optical pickup. (Figure 6)
o Remove the mechanism control board.

1. Remove the flexible harness from the feed motor connector on the spindle motor board assembly.
2. Remove the three screws at D fixing the spindle motor from the bottom of the traverse chassis.

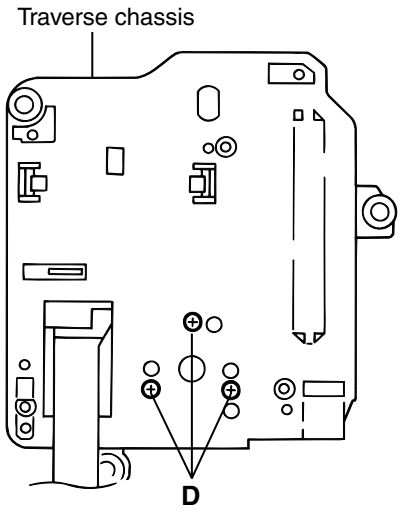


Figure 8

■ **Removing the feed motor unit** (refer to Figure 9)

o Remove the traverse mechanism unit.
o Remove the mechanism control board.

1. Remove the FPC from the feed motor connector on the turntable spindle motor board.
2. Remove the two screws at E fixing the feed motor unit.

■ **Removing the optical pickup unit** (refer to Figure 9)

o Remove the traverse mechanism unit.
o Remove the mechanism control board.
o Remove the feed motor unit.

1. Remove the screw at F fixing the guide shaft holder at B, then simultaneously remove the guide shaft at B and the optical pickup unit. While doing so, slide the unit horizontally away from the guide shaft at A.

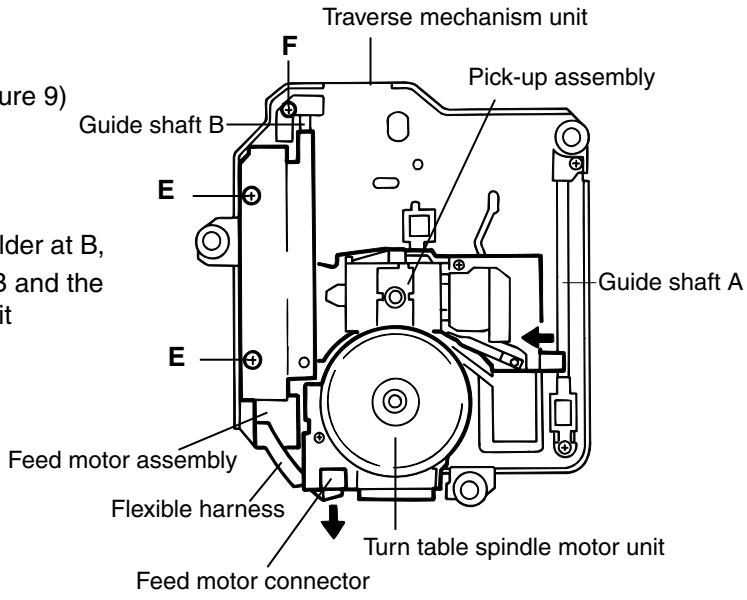


Figure 9

■ **Removeing the loading mechanism parts**
(refer to Figures 10 - 11)

o Remove the clamper base.

o Remove the disk tray.

1. Turn the lever counterclockwise until it stops (position 1), while pushing the switch lever in the direction of the arrow and pushing up the pawl at A using a screwdriver.
2. Stretch the two pawls at B outward using a screwdriver and remove the chassis.
3. Turn the lever clockwise (position 2) to remove the up-down cam.
4. Remove the pulley gear and the pulley gear belt after removing the screw at G fixing the pulley gear.
5. Pull out drive gear 2 then drive gear 1.

■ **Removing the loading motor board**
(refer to Figures 11 - 12)

o Remove the clamper base.

o Remove the disk tray.

1. Remove the loading belt.
2. Remove the two screws at H fixing the loading motor.
3. Remove the screw at I and the three pawls at C fixing the loading motor base from the reverse side of the loading base.

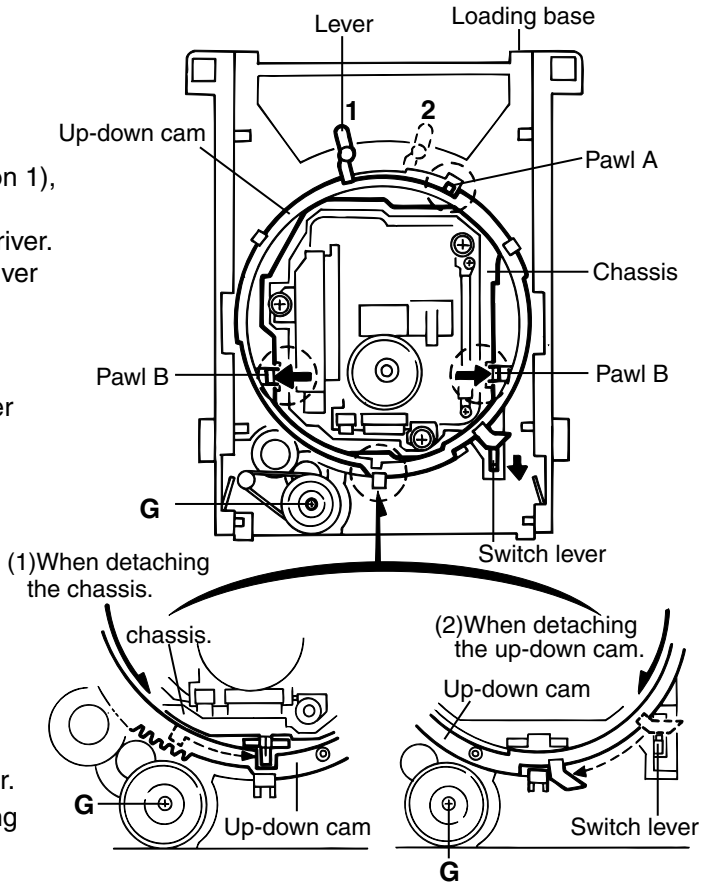


Figure 10

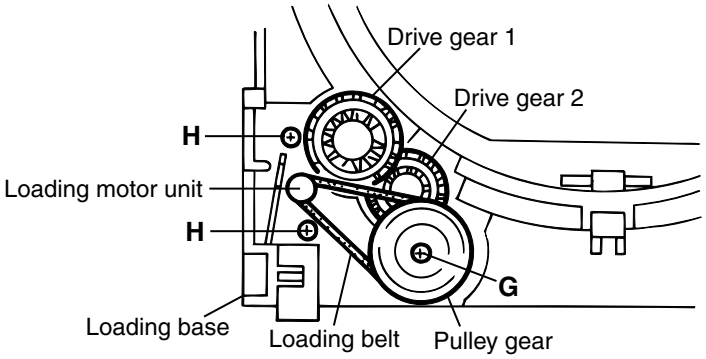


Figure 11

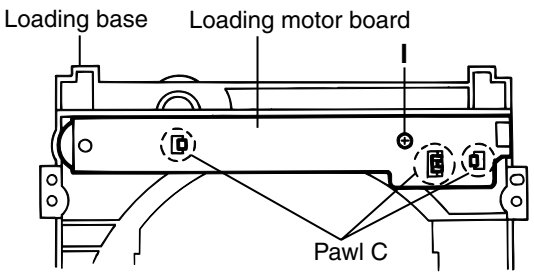


Figure 12

Disassembly method

<Speaker>

■Removing the amplifier assembly (See Fig.1)

1. Remove the twelve screws A attaching the amplifier assembly on the back of the body.

2. Move the amplifier assembly backward and disconnect the harness from connector CN109 in the lower part of the amplifier assembly.

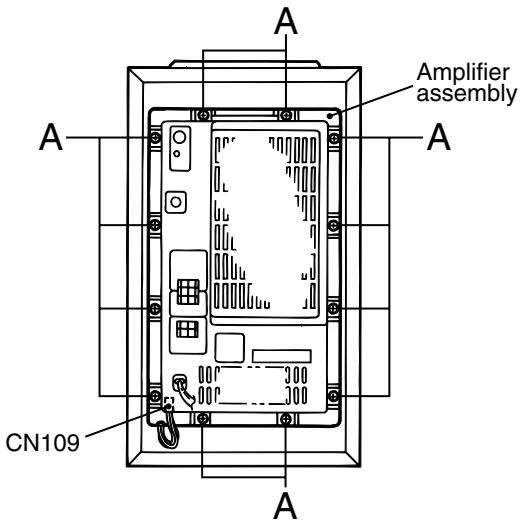


Fig.1

■Removing the heat sink cover and the amplifier cover (See Fig.2 and 3)

・ Prior to performing the following procedure, remove the amplifier assembly.

1. Pull out the volume knob.

2. Remove the four screws B attaching the heat sink cover.

3. Remove the twenty screws C and the one screw D attaching the amplifier cover.

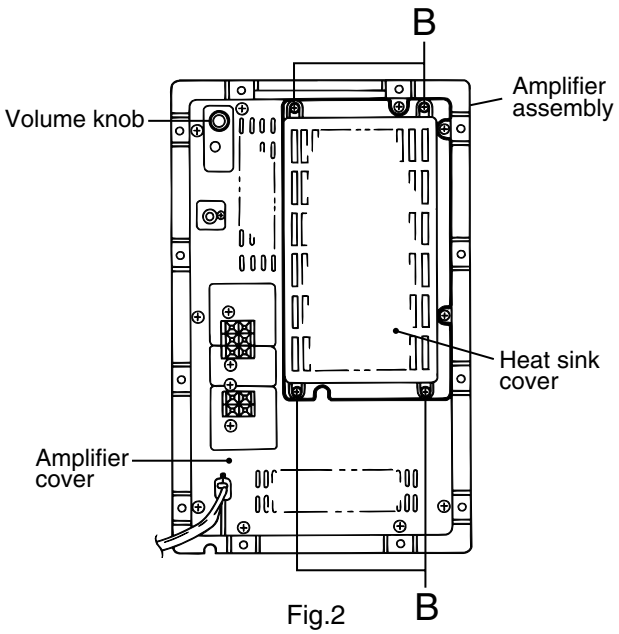


Fig.2

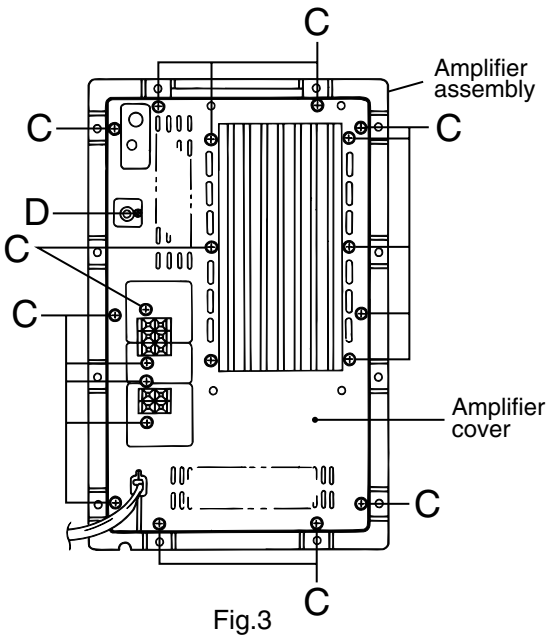


Fig.3

■Removing the front panel assembly (See Fig. 6 to 9)

・ Prior to performing the following procedure, remove the top cover, the rear cover and the side covers.

1. Disconnect the harness from connector CN802 on the main board on the upper side of the body.
2. Remove the two screws C on the upper side of the body.
3. Remove the three screws D on the bottom of the body.
4. Release the five joints c and detach the front panel assembly toward the front.

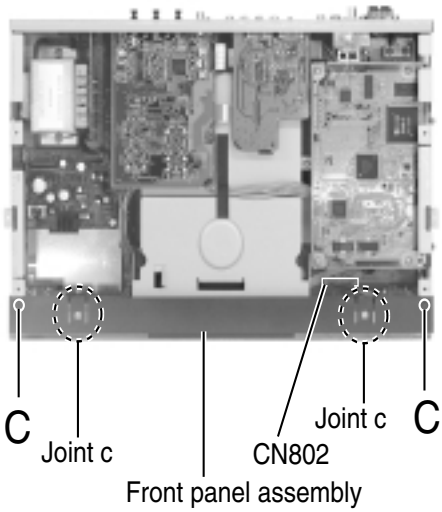


Fig.6

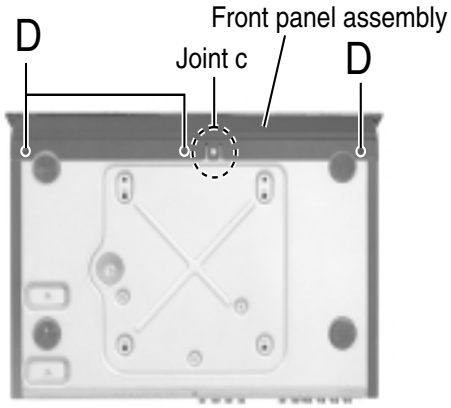


Fig.7

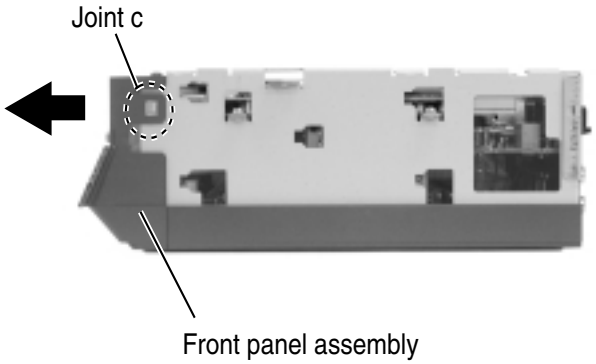


Fig.9

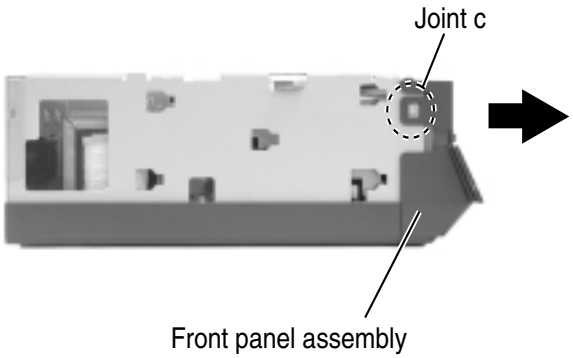


Fig.8

■Removing the right and left corner covers (See Fig.10 and 11)

- Prior to performing the following procedure, remove the top cover, the rear cover, the side covers and the front panel assembly.
- It is not necessary to remove the front panel assembly.

1. Move the left corner cover backward to release the three joint hooks d.
2. Remove the right corner cover in the same way.

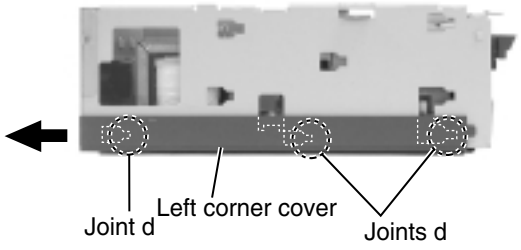


Fig.10

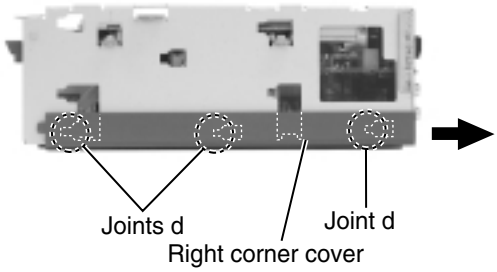


Fig.11

■Removing the rear panel (See Fig.12 to 14)

- Prior to performing the following procedure, remove the top cover and the rear cover.

1. Remove the eighteen screws E and the one screw F attaching the rear panel.
2. Release the two joints e on both sides of the body.

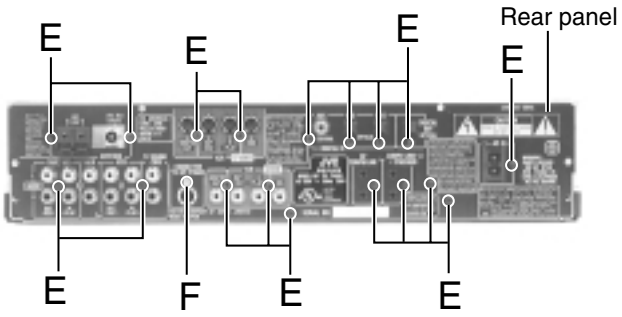


Fig.12

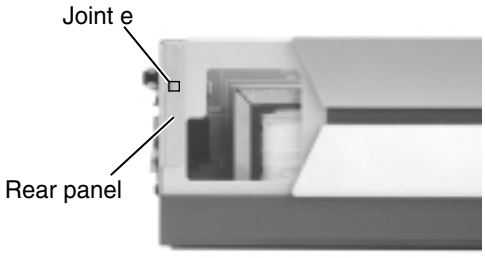


Fig.12

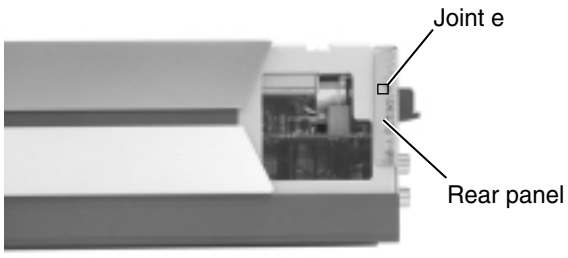


Fig.12

■Removing the DVD servo control board (See Fig.15 to 17)

・Prior to performing the following procedure, remcover and the right side cover.ove the top cover, the rear

1. Remove the three screws G and pull the DVD servo control board case upward.

2. Disconnect the harness from connector CN501 and CN503, and the card wire from CN101, CN103 and CN502 of the DVD servo control board on the underside of the DVD servo control board case.

3. Remove the four screws H attaching the DVD servo control board.

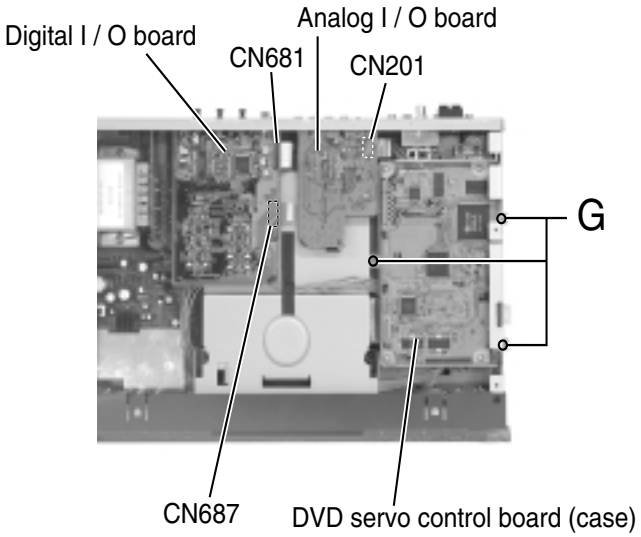


Fig.15

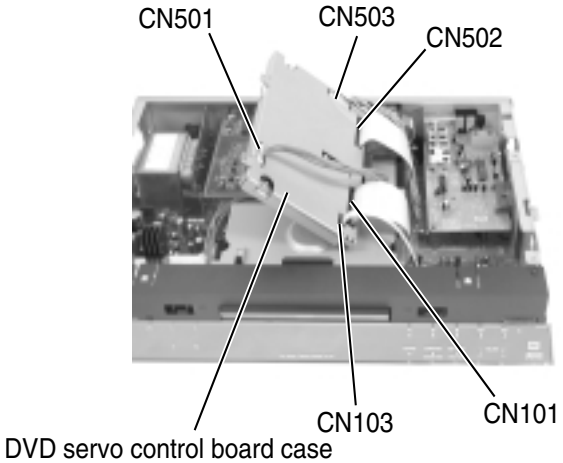


Fig.16

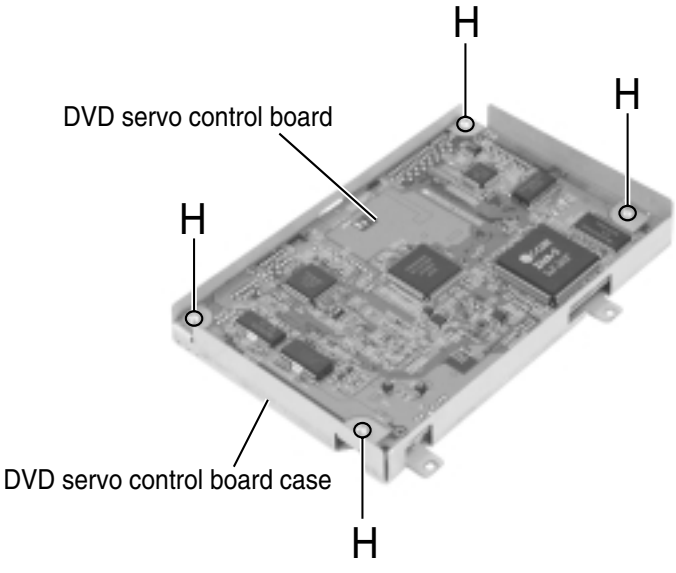


Fig.17

Main Adjustment

Adjustment and confirmation matter

(1) Auto adjustment method

If microprocessor (IC401, IC402, IC714, IC716) or DVD Prek-up is replaced, initialize the DVD player in the following matter:

1. Initialize the DVD player in the following matter:

1) Make sure that no disc is on the tray.
2) Insert the power pulag to the outret while pressing "PLAY" and "OPEN/CLOSE" button at the same time.
FL Display indicate ¥ ; Region cord.
3) Press Enter button. And EEPROM initialize start.
4) When indicate "96kHz EEPROM" on the display , initialize finished.

Note : During the EEPROM initialization the keys may not be operated.
Press the "POWER" key to initiate the STAND-BY mode and the test mode will then be cancelled.

(2) Confirmation of DVD RF level

1.The oscilloscope is connected between "1"(RFOP) of CN104 and "2"(GND).

2.Reproduction of the test disc (VT-501) made by JVC.

3.It is confirmed that RF LEVEL is 350mVp-p±150mVp-p.

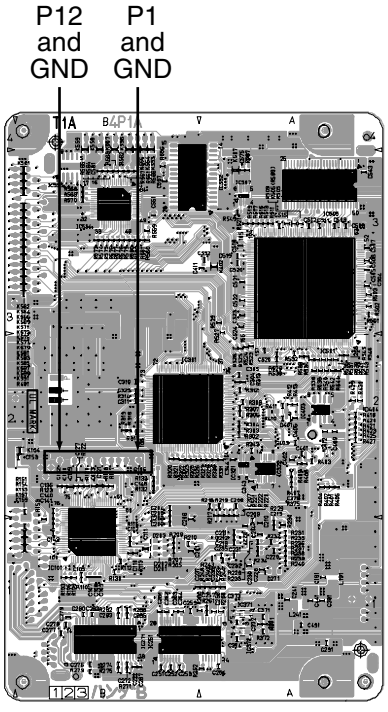
4.When there is disorder in the waveform road cuts etc, test disk is exchanged and measured.

(3) Confirmation of CD jitter level and RF level

1. The CD jitter meter is connected between "11"(GND) of CN104 and "12"(FLTOUT).
The RF level is observed at the same time.
2.The first test disk(CTS-1000) made of JVC is reproduced.

3.It is confirmed that RF LEVEL is 360±100mVp-p.

5. When there is disorder in the waveform road cuts etc, test disk is exchanged and measured.



DVD SERVO CONTROL PWB

FRONT SIDE

(4) Flap adjustment of the Pick-up guide shaft

1) Make sure that there is no disc on the tray.

2) Press both the "PLAY" and "OPEN/CLOSE" keys of the main unit to activate the primary power and ＊＊¥(＊＊ ; Version3, ¥; Region cord) will be displayed on the FL indicator.

Note: If the FL indicator display stops and remains at "TEST 0", unplug the power cord from the outlet and after waiting at least 1 second, plug it in again. After the tray open/close procedure has completed, unplug it again and then perform the initialization procedure again.

3) Press the "OPEN/CLOSE" key of the main unit to draw the tray out.
*Place the test disk (VT-501) on the tray and then press the "OPEN/CLOSE" key.
(Note: Pushing the tray to close it is not possible.)

4) Press the "PLAY" key of the main unit.

5) The "JIT 0000" is displayed on the FL indicator.
Set the FL indicator figure value to its minimum by adjusting the pickup guide shaft flap.
* The test mode is cancelled when the power is turned off.

Measurement	Adjustment point	Mode	Disc
—	Refer to Fig.2	Reproduction part	VT-501

Measurement machine	connections	Extension cord No.
No need	Refer to Fig.1	QUQ110-3740AM

General tool : Hex-head wrench (1.27 mm)

"Flap adjustment" of the Pick-up guide shaft adjusts
"Tangential adjustment machine screw" A and
"Tilt adjustment machine screw" B from the
DVD Mechanism A'ssy bottom.

1. The part at the center on the DVD test disc is reproduced.
2. The flap adjustment screws is turned alternately and adjusted like clearly seeing the waveform of CN104"1" to the way.

Note
1. The tangential adjustment is done finish and, then, tilt is adjusted.
2. The repeat the adjustment 2-3 times,for best result.
3. The final adjustment should be tilt adjustment.

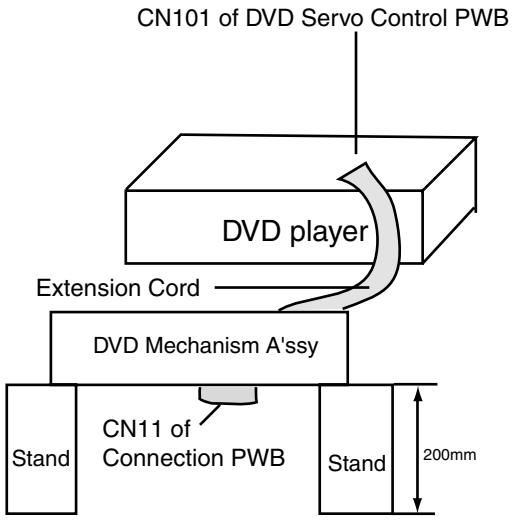


Fig.1

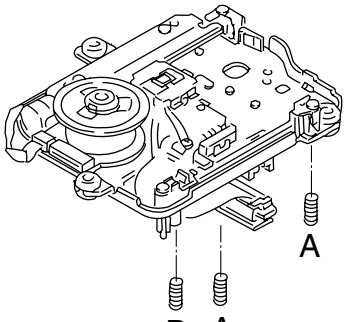


Fig.2

Confirmation after adjustment.

Confirm to reproduce video CD and CD after the DVD test disc is adjusted and to find abnormality.

(5) About keeping the disc

As for the DVD test disc, plane accuracy is demanded.Please note the keeping place on the disc.

1. Please do not put the disc directly on the work desk etc. after uses .
2. To keep the planarity of the disc, politely handle ,and please put in a special case and keep the disc vertically after uses .
   Please keep keeping the disc in a cool place where direct sunshine and the air-conditioning wind do not drive.
3. When the disc curves,an accurate adjustment cannot be done.
   Please exchange for a new test disc and adjust optics.
4. Other discs might not be able to be reproduced when adjusting on a curved disc.

Point of adjustment

* Please execute the static electricity protection measures before starting the adjustment.
* When the following parts are exchanged,optical adjustment "Adjust the flap of the disc motor" is necessary.
  1.The disc motor was exchanged.
  2.The laser pick up was exchanged.
  3.The traverse motor unit was exchanged.

Note

Additionally, please adjust the flap of the disc motor when the picture quality deterioration is seen .The basic adjustment though, is unnecessary for part exchange in the traverse.
An optical adjustment in the laser pick up cannot be done.
Please adjust the flap of the disc motor after exchanging the laser pick up.

* When the traverse unit is exchanged, the adjustment is basically unnecessary.

Precautions for Service

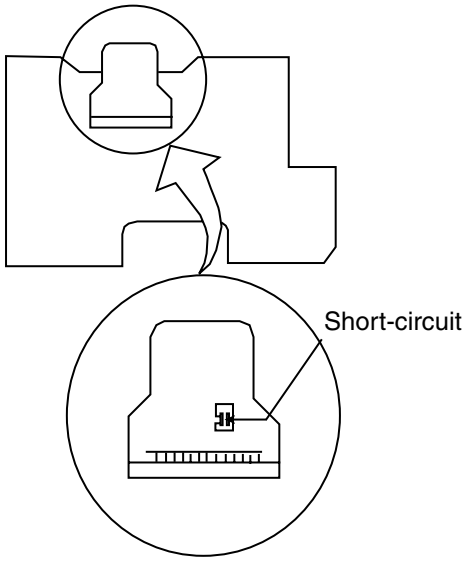
Handling of Traverse Unit and Laser Pickup

1. Do not touch any peripheral element of the pickup or the actuator.
2. The traverse unit and the pickup are precision devices and therefore must not be subjected to strong shock.
3. Do not use a tester to examine the laser diode. (The diode can easily be destroyed by the internal power supply of the tester.)
4. To replace the traverse unit, pull out the metal short pin for protection from charging.
5. When replacing the pickup, after mounting a new pickup, remove the solder on the short land which is provided at the center of the flexible wire to open the circuit.
6. Half-fixed resistors for laser power adjustment are adjusted in pairs at shipment to match the characteristics of the optical block.
   Do not change the setting of these half-fixed resistors for laser power adjustment.

Destruction of Traverse Unit and Laser Pickup by Static Electricity

Laser diodes are easily destroyed by static electricity charged on clothing or the human body. Before repairing peripheral elements of the traverse unit or pickup, be sure to take the following electrostatic protection:

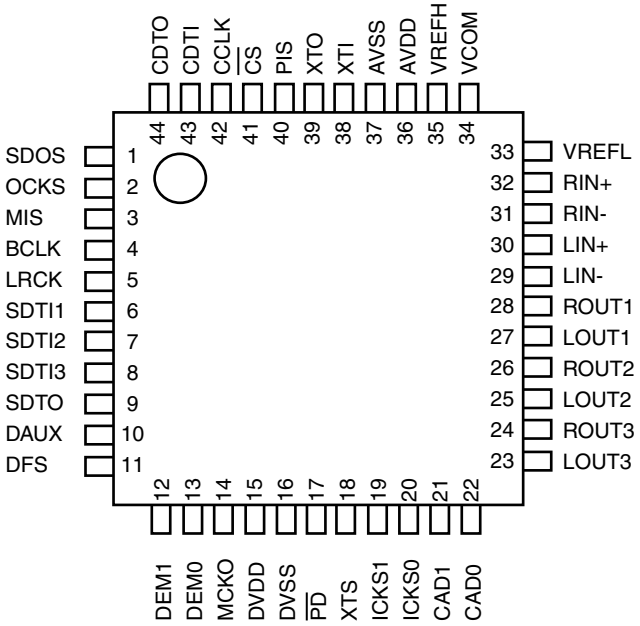
1. Wear an antistatic wrist wrap.
2. With a conductive sheet or a steel plate on the workbench on which the traverse unit or the pick up is to be repaired, ground the sheet or the plate.
3. After removing the flexible wire from the connector (CN101), short-circuit the flexible wire by the metal clip.
4. Short-circuit the laser diode by soldering the land which is provided at the center of the flexible wire for the pickup.
   After completing the repair, remove the solder to open the circuit.



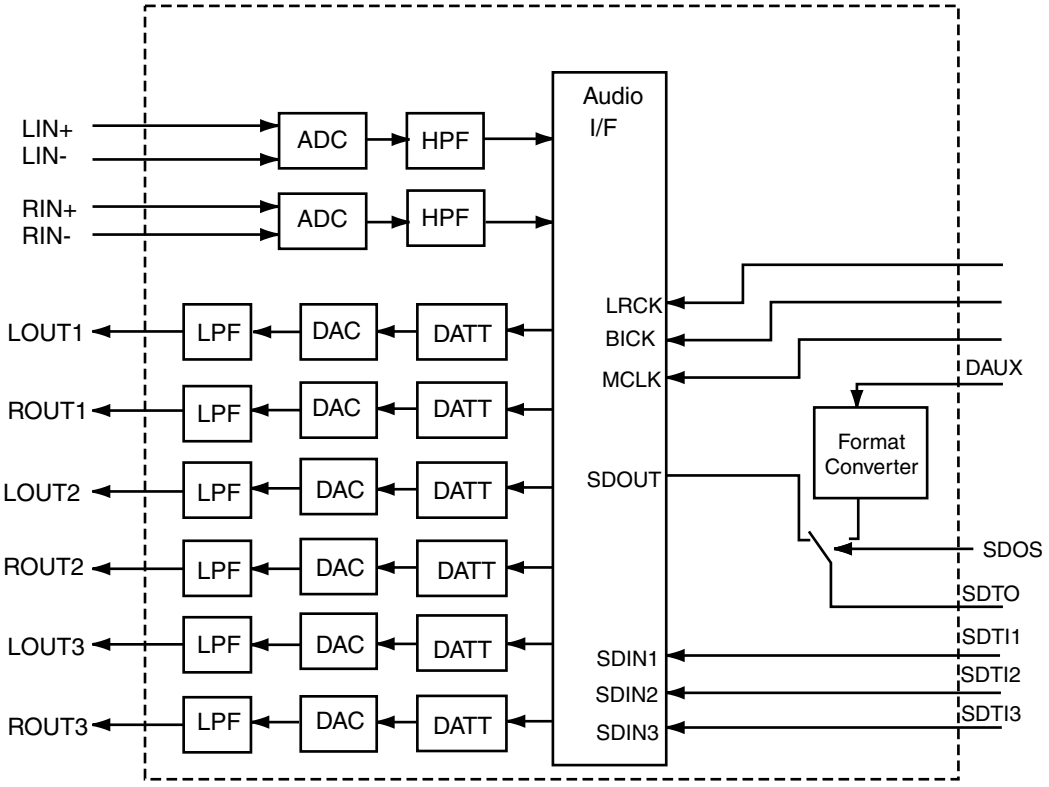
Discription of major IC's

■ AL4527 (IC601): A/D, D/A Converters

1. Terminal layout



2. Block diagram

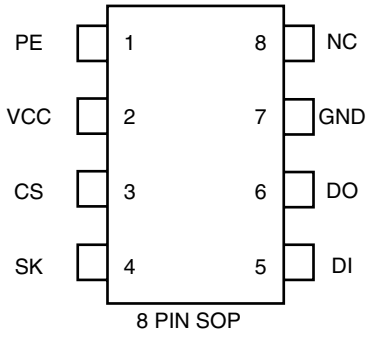


3. Pin function

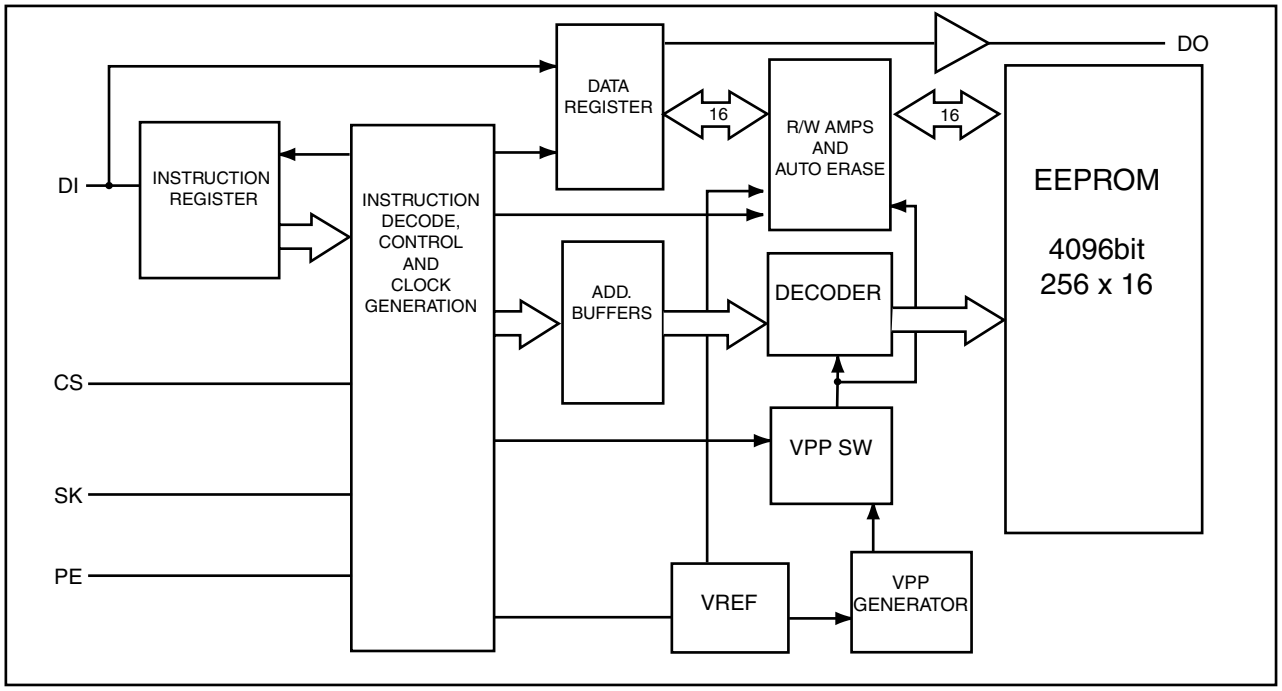
Pin No.	Symbol	I/O	Functions
1	SDOS	I	SDTO source select terminal L: Internal ADC output H: DAUX input
2	OCKS	I	Serial control mode select terminal L: 3-wire serial H: IC bus
3	MIS	I	Soft mute terminal H: Starting Soft mute L: Cancel
4	BCLK	I	Audio serial data clock terminal
5	LRCK	I/O	Input channel clock terminal
6	SDTI1	I	DAC1 audio serial data input terminal
7	SDTI2	I	DAC2 audio serial data input terminal
8	SDTI3	I	DAC3 audio serial data input terminal
9	SDTO	O	Audio serial data output terminal
10	DAUX	I	Auxiliary audio serial data input terminal
11	DFS	I	2x sampling mode terminal L: Ordinal speed H: 2x speed
12	DEM1	I	De-emphasize 1 terminal
13	DEM0	I	De-emphasize 2 terminal
14	MCKO	-	Power terminal for output buffer 2.7 5.5 V
15	DVDD	-	Digital power supply terminal 4.5 5.5 V
16	DVSS	-	Digital ground terminal 0 V
17	PD	I	Power down & reset terminal L: Power is down and register is initialized.
18	XTS	I	Input clock selection 2 terminals
19	ICKS1	I	Input clock selection 1 terminals
20	ICKS0	I	Input clock selection 0 terminals
21	CAD1	I	Chip address 1 terminal
22	CAD0	I	Chip address 0 terminal
23	LOUT3	O	DAC3 L channel analog output terminal
24	ROUT3	O	DAC3 R channel analog output terminal
25	LOUT2	O	DAC2 L channel analog output terminal
26	ROUT2	O	DAC2 R channel analog output terminal
27	LOUT1	O	DAC1 L channel analog output terminal
28	ROUT1	O	DAC1 R channel analog output terminal
29	LIN-	I	L channel analog reverse input terminal
30	LIN+	I	L channel analog non-reverse input terminal
31	RIN-	I	R channel analog reverse input terminal
32	RIN+	I	R channel analog non-reverse input terminal
33	VREF	O	Zero input detection terminal L: P/S = H
34	VCOM	O	COMMON voltage output terminal
35	VREFH	-	Reference voltage input terminal
36	AVDD	-	Analog power supply terminal 4.5 5.5 V
37	AVSS	-	Analog ground terminal 0 V
38	XTI	O	Zero input detection terminal L: P/S = H
39	XTO	I	Master clock input terminal
40	PIS	I	Parallel/serial select terminal L: Serial control mode H: Parallel control mode
41	CS	I I	Audio data interface format 0 terminal (with parallel control mode) Chip select terminal (with 3-wire serial control mode)
42	CCLK	I I	Audio data interface format 0 terminal (with parallel control mode) Control data clock terminal (with serial control mode)
43	CDTI	I I/O	Loopback mode 0 terminal (with parallel control mode) Control data input terminal (with serial control mode)
44	CDTO	I	Loopback mode 1 terminal

■ AK93C65AF-X (IC403) : EEPROM

1.Terminal layout



2.Block diagram



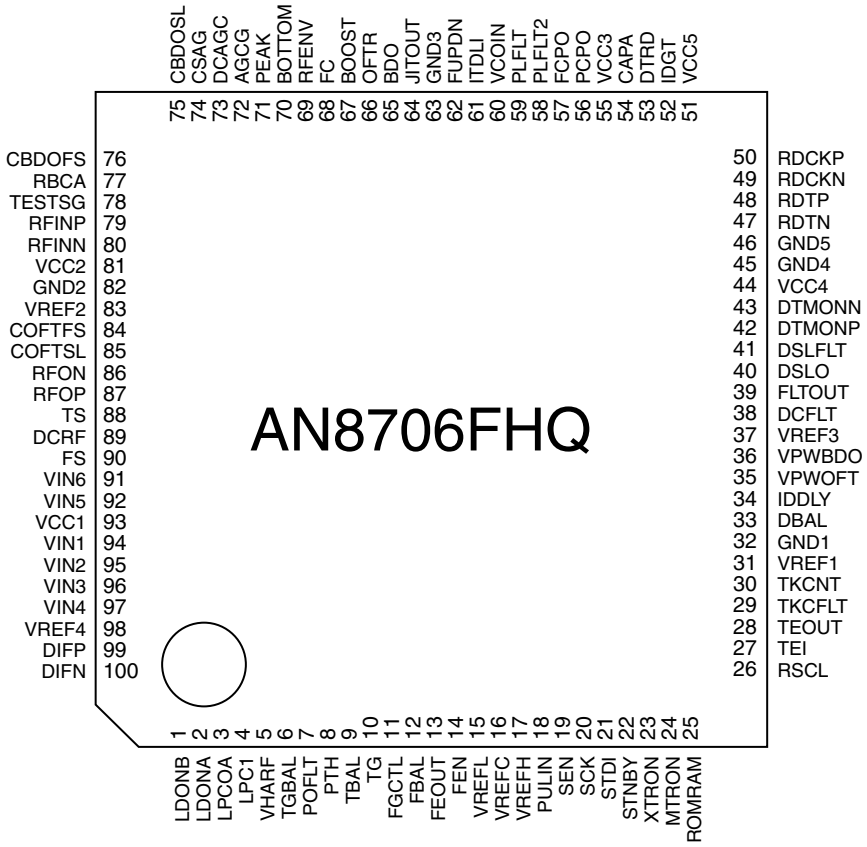
3.Pin function

Pin no.	Symbol	Function
1	PE	Program enable (With built-in pull-up resistor)
2	VCC	Power supply
3	CS	Chip selection
4	SK	Cereal clock input
5	DI	Cereal data input
6	DO	Cereal data output
7	GND	Ground
8	NC	No connection

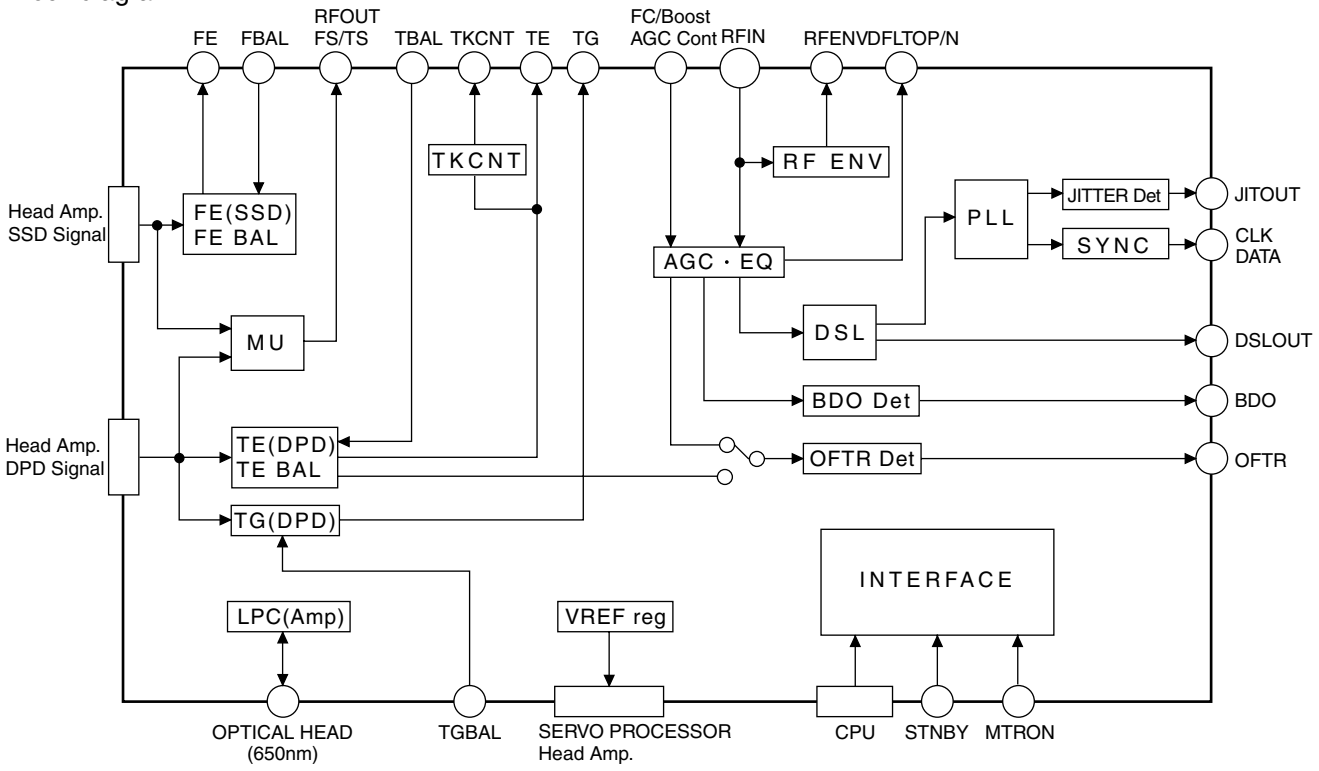
NOTE : The pull-up resistor of the PE pin is about 2.5M Ω (VCC=5V)

■ AN8706FHQ (IC101) : Front end processor

1.Pin layout



2.Block diagram



3.Pin function

AN8706FHQ (1/2)

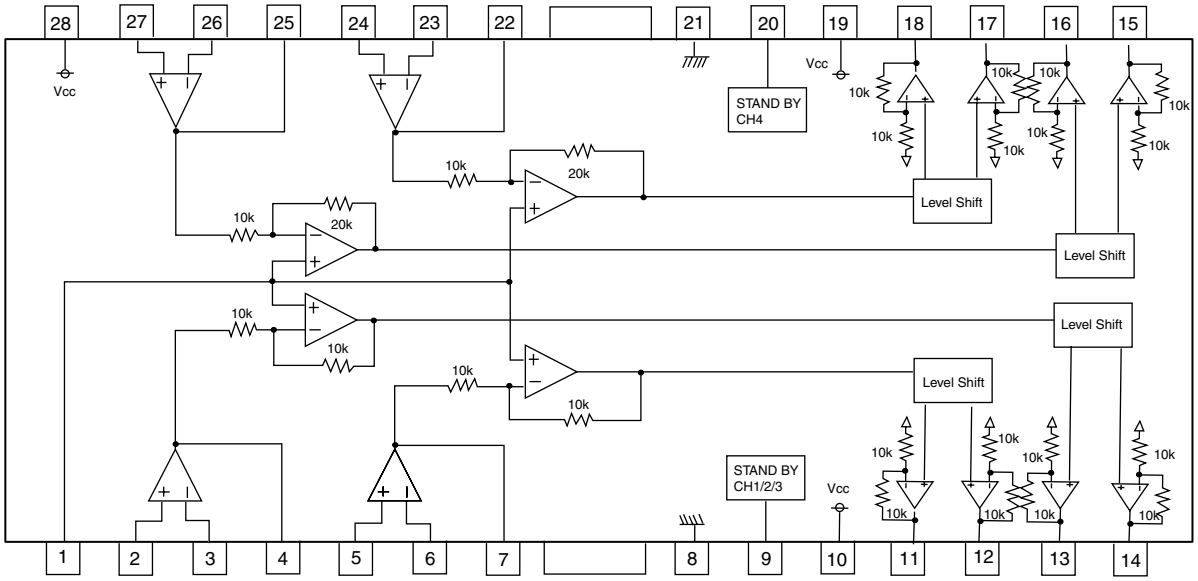
Pin No.	Symbol	I/O	Functions
1	LDONB	I	Laser ON (CD Head) terminal
2	LDONA	I	Laser ON (DVD Head) terminal
3	LPCOA	O	Laser drive output terminal
4	LPC1	I	Laser PIN input terminal
5	VHARF	O	VHALF voltage output terminal
6	TGBAL	I	Tangential phase balance control terminal
7	POFLT	O	Track detection Threshold value level terminal
8	PTH	I	Track detection Threshold value level terminal
9	TBAL	I	Tracking balance control terminal
10	TG	O	Tangential phase error signal output terminal
11	FGCTL	I	Focus amplifier Gain control terminal
12	FBAL	I	Focus balance control terminal
13	FEOUT	O	Focus error signal output terminal
14	FEN	I	Focus error output amplifier reversing input terminal
15	VREFL	O	VREFL voltage output terminal
16	VREFC	O	VREFC voltage output terminal
17	VREFH	O	VREFH voltage output terminal
18	PULIN	I	DSL,PLL drawing mode switch terminal
19	SEN	I	SEN(Cereal data input terminal)
20	SCK	I	SCK(Cereal data input terminal)
21	STDI	I	STDI(Cereal data input terminal)
22	STNBY	I	Standby mode control terminal
23	XTRON	I	Tracking OFF holding input terminal
24	MTRON	I	Monitor output ON/OFF switch terminal
25	ROMRAM	I	ROM · RAM switch terminal
26	RSCL	O	Standard current source terminal
27	TEI	I	Tracking error output Amp reversing input terminal
28	TEOUT	O	Tracking error signal output terminal
29	TKCFLT	O	Track count detection filter terminal
30	TKCNT	O	Track count output terminal
31	VREF1	O	VREF1 voltage output terminal
32	GND1	O	Earth terminal 1
33	DBAL	I	Data slice offset adjustment terminal
34	IDDLY	I	Data slice delay adjustment terminal
35	VPWOFT	I	OFTR detection level setting terminal
36	VPWBDO	I	BDO detection level setting terminal
37	VREF3	O	VREF3 voltage output terminal
38	DCFLT	O	Capacity connection terminal for data slice input filter
39	FLTOUT	O	Filter amplifier output terminal
40	DSLO	O	Data slice single data output terminal
41	DSLFLT	O	Constant filter terminal when data is sliceddelly
42	DTMONP	O	PLL differential motion 2 making to value edge signal moniter output (+)
43	DTMONN	O	PLL differential motion 2 making to value edge signal moniter output (-)
44	VCC4	I	Power terminal 4 (5V)
45	GND4	O	Earth terminal 4
46	GND5	O	Earth terminal 5
47	RDTN	O	PLL differential motion making to synchronization RF signal reversing output
48	RDTP	O	PLL differential motion making to synchronization RF signal rotation output
49	RDCKN	O	PLL differential motion making synchronization clock reversing output
50	RDCKP	O	PLL differential motion making synchronization clock rotation output

AN8706FHQ(2/2)

Pin No.	Symbol	I/O	Functions
51	VCC5	I	Power terminal 5 (3.3V)
52	IDGT	I	Data slice part address part gate signal input terminal (For RAM)
53	DTRD	I	Data slice data read signal input terminal(For RAM)
54	CAPA	I	Data slice CAPA(Address)signal input terminal (For RAM)
55	VCC3	I	Power terminal 3 (5V)
56	PCPO	O	PLL phase gain set terminal
57	FCPO	O	PLL frequency gain set terminal
58	PLFLT2	O	PLL low region filter terminal
59	PLFLT	O	PLL high region filter terminal
60	VCOIN	I	PLL VCO input terminal
61	ITDLI	O	PLL jitter free current ripple removal filter terminal
62	FUPDN	I	PLL frequency control input terminal
63	GND3	O	Earth terminal 3
64	JITOUT	O	Detection signal output of jitter
65	BDO	O	BDO output terminal
66	OFTR	O	OFTR output terminal
67	BOOST	I	Booth control terminal for filter
68	FC	I	FC control terminal for filter
69	RFENV	O	RF enve output terminal
70	BOTTOM	O	Bottom enve detection filter terminal
71	PEAK	O	Peak enve detection filter terminal
72	AGCG	O	AGC amplifier gain control terminal
73	DCAGC	O	AGC amp filter terminal
74	CSAG	O	Sag cancellation circuit filter terminal
75	CBDOSL	O	BDO detection capacitor terminal
76	CBDOFS	O	BDO detection capacitor terminal
77	RBCA	O	BCA detection level setting terminal
78	TESTSG	I	TEST signal input terminal
79	RFINP	I	RF signal positive moving input terminal
80	RFINN	I	RF signal reversing input terminal
81	VCC2	I	Power terminal 2 (5V)
82	GND2	O	Earth terminal 2
83	VREF2	O	VREF2 voltage output terminal
84	COFTFS	O	OFTR detection capacitor terminal
85	COFTFL	O	OFTR detection capacitor terminal
86	RFON	O	RF signal output terminal P
87	RFOP	O	RF signal output terminal N
88	TS	O	All addition amplifier (DVD) output terminal
89	DCRF	O	All addition amplifier capacitor terminal
90	FS	O	All addition amplifier (CD) output terminal
91	VIN6	I	Focus input of external division into two terminal
92	VIN5	I	Focus input of external division into two terminal
93	VCC1	I	Power terminal 1 (5V)
94	VIN1	I	External division into four (DVD/CD) RF input terminal 1
95	VIN2	I	External division into four (DVD/CD) RF input terminal 2
96	VIN3	I	External division into four (DVD/CD) RF input terminal 3
97	VIN4	I	External division into four (DVD/CD) RF input terminal 4
98	VREF4	O	VREF4 voltage output terminal
99	DIFP	O	RF signal (RAM) output terminal P
100	DIFN	O	RF signal (RAM) output terminal N

■ BA5983FM (IC271) : 4CH DRIVER

1.Block Diagram



2.Pin Function

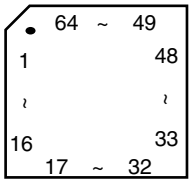
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	BLAS IN	I	Input for Bias-amplifier	15	VO4(+)	O	Non inverted output of CH4
2	OPIN1(+)	I	Non inverting input for CH1 OP-AMP	16	VO4(-)	O	Inverted output of CH4
3	OPIN1(-)	I	Inverting input for CH1 OP-AMP	17	VO3(+)	O	Non inverted output of CH3
4	OPOUT1	O	Output for CH1 OP-AMP	18	VO3(-)	O	Inverted output of CH3
5	OPIN2(+)	I	Non inverting input for CH2 OP-AMP	19	PowVcc2	-	Vcc for CH3/4 power block
6	OPIN2(-)	I	Inverting input for CH2 OP-AMP	20	STBY2	I	Input for Ch4 stand by control
7	OPOUT2	O	Output for CH2 OP-AMP	21	GND	-	Substrate ground
8	GND	-	Substrate ground	22	OPOUT3	O	Output for CH3 OP-AMP
9	STBY1	I	Input for CH1/2/3 stand by control	23	OPIN3(-)	I	Inverting input for CH3 OP-AMP
10	PowVcc1	-	Vcc for CH1/2 power block	24	OPIN3(+)	I	Non inverting input for CH3 OP-AMP
11	VO2(-)	O	Inverted output of CH2	25	OPOUT4	O	Output for CH4 OP-AMP
12	VO2(+)	O	Non inverted outpur of CH2	26	OPIN4(-)	I	Inverting input for CH4 OP-AMP
13	VO1(-)	O	Inverted output of CH1	27	OPIN4(+)	I	Non inverting input for CH4 OP-AMP
14	VO1(+)	O	Non inverted outpur of CH1	28	PreVcc	-	Vcc for pre block

■ JCE8011(IC551):GRAPHIC CONTROLLER

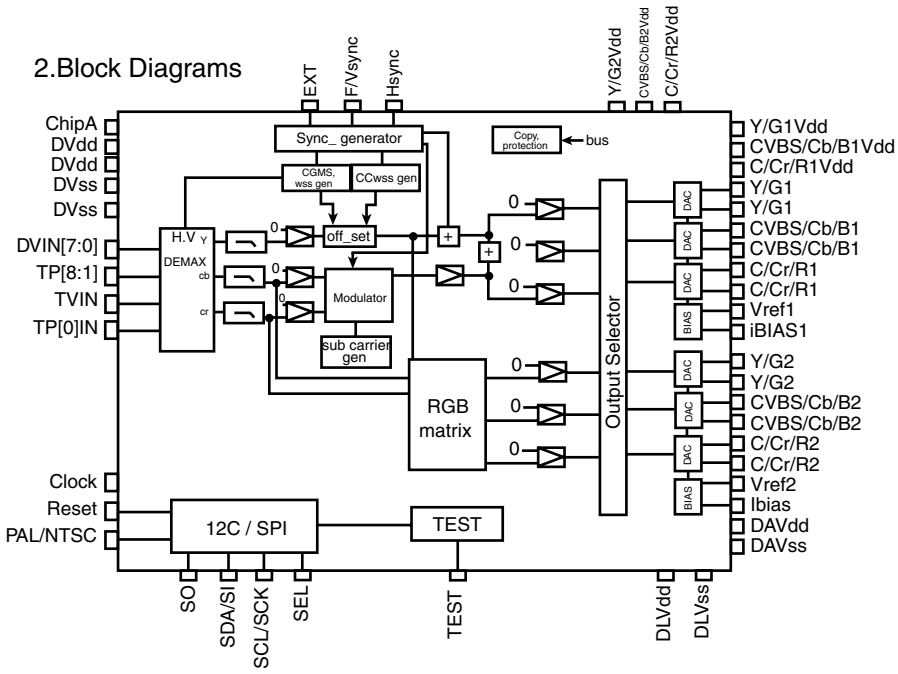
Pin No.	Symbol	I/O	Function
1~8	VD0~7	I	DVD Image signal input (Multi plex data Y,Cr,Cb)
9	VCLKI	I	Dot clock signal input (27MHz)
10	HSYNCI	I	The horizontal synchronous signal input
11	VSYNCI	I	Vertical synchronous signal input
12	VCC	-	Power supply
13	VCLKD	O	Dot clock signal output (27MHz)
14	HSYNCO	O	'H' blanking output
15	VSYNCO	O	'V' blanking output
16~23	DOUT0~7	O	Digital data output
24	TEST	-	Test terminal (Uses as GND usually)
25	RESETB	I	System reset signal
26	GND	-	Connect to GND
27	NTB	I	Mode switching NTSC(low) / PAL(high)
28	DTSF0	I	Taking timing shift of VD input
29	DTSFI	I	Taking timing shift of VD input
30	VIDEG	I	Taking edge specification of VD input (0:up , 1:down)
31	DOSF0	I	Timing shift input of output data
32	DOSF1	I	Timing shift input of output data
33	XVRST	O	Non connect
34	F1	O	Field Identification signal output
35	HBL	O	'H' blanking output
36	VBL	O	'V' blanking output
37	VOEDG	I	Output timing setting of DOUT (0:up , 1:down)
38	VCC	-	Power supply
39~46	FRD7~0	I	Field memory read data input
47	GND	-	Connect to GND
48	FRCK	O	Field memory read clock
49	FWCK	O	Field memory write clock
50	FREB	O	Field memory read enable
51	FWEB	O	Field memory write enable
52	FRRSTB	O	Field memory read address reset
53	FWRSTB	O	Field memory write address reset
54~61	FWD7~0	O	Field memory write data output
62	VCC	-	Power supply
63~70	CHD7~0	I	Character ROM data
71	GND	-	Connect to GND
72	CHOEB	O	Character ROM output enable
73~82	CHA19~10	O	Character ROM address output
83	VCC	-	Power supply
84~93	CHA9~0	O	Character ROM address output
94	GND	-	Connect to GND
95	ACK	O	
96	CS1B	I	Serial data chip select for graphic control
97	CS2B	I	Serial data chip select for encoder control
98	SCK	I	Serial clock input
99	RXD	I	Serial input data
100	TXD	O	Serial output data

■ MC44724AVFU(IC554):VIDEO ENCODER

1.Terminal Layout



2.Block Diagrams

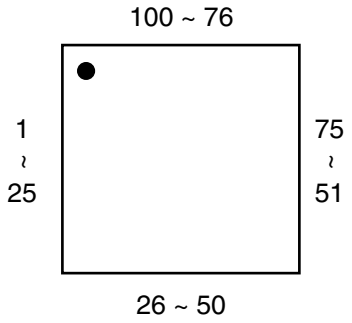


3.Pin function

No.	Symbol	I/O	Function	No.	Symbol	I/O	Function
1	CVBS/Cb/B1	O	Analog composite drive signal (+)	33	SO	-	Non connect
2	CVBS/Cb/B1	O	Analog composite drive signal (-)	34	SDA/SI	I	SPI Mode : Serial data input
3	CVBS/Cb/B1Vdd	-	Power supply for CVBS/Cb/B DAC1	35	SCL/SCK	I	Serial clock input
4	Y/G1	O	Analog brightness signal/G drive signal (+)	36	SEL	I	Power supply for serial data,chip select,digital
5	$\overline{Y/G1}$	O	Analog brightness signal/G drive signal (-)	37	DVdd	--	Power supply for digital circuit
6	Y/G1/Vdd	-	Power supply for Y/G DAC	38	DVss	--	Digital ground
7	C/Cr/R1	O	Analog chroma signal (+)	39	DVIN7	I/O	Y data input / test data I/O
8	$\overline{C/Cr/R1}$	O	Analog chroma signal (-)	40	DVIN6	I/O	Y data input / test data I/O
9	C/Cr/R1Vdd	-	Power supply for C/Cr/RDAC	41	DVIN5	I/O	Y data input / test data I/O
10	DAVss	-	Connect to ground for DAC	42	DVIN4	I/O	Y data input / test data I/O
11	TBIAS1	O	Standard BIAS for DAC1	43	DVIN3	I/O	Y data input / test data I/O
12	Vref1	-	Standard voltage for DAC1	44	DVIN2	I/O	Y data input / test data I/O
13	DAVdd	-	Power supply for DAC	45	DVIN1	I/O	Y data input / test data I/O
14	Vref2	-	Standard voltage for DAC2	46	DVIN0	I/O	Y data input / test data I/O
15	TBIAS2	O	Standard BIAS for DAC2	47	TVIN	I	VIDEO mote on Reset(0:nomal, 1:mute)
16	NC	-	Non connect	48	EXT	I/O	Frame output / VBI information input
17	CVBS/Cb/B2	O	Analog composite drive signal (+)	49	F/Vsyac	I/O	Frame / Vertical, synchronous I/O
18	CVBS/Cb/B2	O	Analog composite drive signal (-)	50	Chsyac	I/O	The horizontal, synchronous I/O
19	CVBS/Cb/B2Vdd	-	Power supply for CVBS/Cb/B DAC2	51	DATST	I	Data input
20	Y/G2	O	Analog brightness signal/G drive signal (+)	52	TP-8	I/O	Multiplex data input
21	$\overline{Y/G2}$	O	Analog brightness signal/G drive signal (-)	53	TP7	I/O	Multiplex data input
22	Y/GVdd	-	Power supply for Y/G DAC	54	TP6	I/O	Multiplex data input
23	C/Cr/R2	O	Analog chroma signal (+)	55	TP5	I/O	Multiplex data input
24	$\overline{C/Cr/R2}$	O	Analog chroma signal (-)	56	DVss	-	Ground for digital circuit
25	C/Cr/R2Vdd	-	Power supply for C/Cr/RDAC2	57	DVdd	-	Power supply for digital circuit
26	ChipA	-	Chip address selection	58	TP4	I/O	Data input / Test data I/O
27	TEST	I	Connect to test pin	59	TP3	I/O	Data input / Test data I/O
28	DVdd	-	Digital ground	60	TP2	I/O	Data input / Test data I/O
29	CLOCK	I	Clock signal input (27MHz)	61	TP1	I/O	Data input / Test data I/O
30	DVss	-	Power supply for digital circuit	62	TP0	I/O	Data input / Test data I/O
31	Reset	I	Reset signal input L:ON	63	DLVdd	-	Power supply for D/A converter
32	PAL/NTSC	I	Selection NTSC/PAL NTSC:L PAL:H	64	DLVss	-	Ground for D/A converter

■ MN101C12G (IC701): System micom

1.Terminal layout



2.Pin function

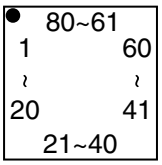
Pin No.	Symbol	I/O	Function
1	GND	-	GND
2	CS0	I	A set bit0 (It is effective in the U.E version)
3	CS1	I	A set bit1 (It is effective in the U.E version)
4	CS2	I	A set bit2 (It is effective in the U.E version)
5	NTSEL	I	NTSC/PAL switch SW input
6	POWER SW	I	Power key input
7	SHUT1	I	JOG shuttle inout (AD)
8	KEY1-5	I	10 Key input (1~5)
9	KEY6-10	I	10 Key input (6~10, +10)
10	VREF	-	+B (Apply 5V)
11	VDD	-	+B (Apply 5V)
12	OSC2	O	10MHz OSC
13	OSC1	I	10MHz OSC
14	VSS	-	GND
15	-	I	Unused, Connects with GND
16	-	O	Unused
17	MMOD	I	Connects with GND
18	OSDCS3	O	VENCODER chip selection
19	RSTE	O	V.ENCOSER reset
20	OSDDO	O	V.ENCODER communication DATA
21	S2UDT	O	Communication between unit microcomputers DATA OUT
22	U2SDT	I	Communication between unit microcomputers DATA IN
23	SCLK	O	Communication between unit microcomputers CLK
24	BUSY	O	Communication between unit microcomputers BUSY
25	CPURST	O	Unit microcomputer reset
26	REQ	I	Communication between unit microcomputers REQ
27	REMO	I	Remote control interruption
28	CS3	I	Set password change judgment bit(H:Change, L:Usual)
29	TEST	I	
30	TEST	I	H:Checkers mode, L:Normal mode
31	TEST	I	H:Running mode, L:Normal mode
32	NC	I	Un used
33	RESET	I	Reset input
34	NC	O	Un uesd
35	NC	O	Un used
36	VDD	-	Un used
37	OSDCK	O	V.ENCODER communication CK
38	NT	O	

MN101C12G (2/2)

Pin No.	Symbol	I/O	Function
39	FS2	O	48kHz, 96kHz switch
40	CHREQ	I	Changer communication REQUEST
41	CHST	O	Changer communication STROBE
42	CHDATAIO	O	Changer communication DATAI/O
43	NC	-	
44	CHCK	O	Changer communication CLOCK
45	FLDATAO	O	FL driver communication DATAO
46	FLDATAI	I	FL driver communication DATAI
47	FLCK	O	FL driver communication CLOCK
48	FLCS	O	FL driver communication CS
49	FLRST	O	FL reset output
50	EEDO	O	EEPROM communication DATAO
51	EEDI	I	EEPROM communication DATAI
52	EECK	O	EEPROM communication CLOCK
53	EECS	O	EEPROM communication CS
54	VS1	O	S1 control
55	VS3	O	S3 control(STBY:H, P.ON:L)
56	DMUT1	-	Un used
57	DMUT2	-	Un used
58	PDB2	-	Un used
59	PDB2	-	Un used
60	DEMP2	-	Un used
61	DEMP1	-	Un used
62	DENA	-	Un used
63	KARAOKE	O	KARAOKE gain control(At KARAOKE : H)
64	POWERON	O	Power ON output
65	VS2	O	S2 control
66~76	NC	O	Un used
77	AVCI	I	AV COMPULINK input
78	AVCO	O	AV COMPULINK output
79	NC	O	Un used
80	STANBYIND	O	Standby LED output
81~85	NC	O	Un used
86	CS4	O	Un used
87	MA	O	DAC control MA
88	MB	O	DAC control MB
89	M1M3	O	DAC control M1M3
90	MD	O	DAC control MD
91	MC	O	DAC control MC
92	GAIN2	-	Un used
93	GAIN1	-	Un used
94	HPMUT	O	Un used
95	DAVSS	-	Un used
96	LMUTE	O	Un used
97	CMUTE	O	Un used
98	SMUTE	O	Un used
99	MUTE	O	Front mute output
100	DAVDD	-	Apply 5V

■ MN101C15FDD (IC401) : System controler

1. Terminal layout



2. Pin function

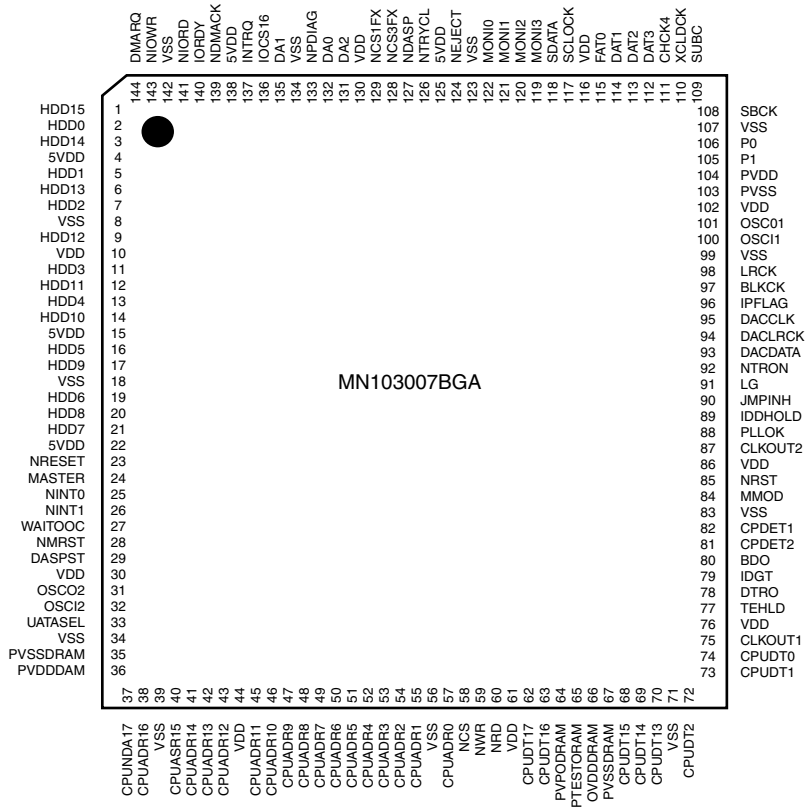
Pin No	Symbol	Function	Pin No	Symbol	Function
1		Ground connection	41	S-MUTE	System mute
2	DVD-S/C	DVD S/C selection terminal	42		Terminal (unused)
3	VCR-S/C	VCR S/C selection terminal	43	T-MUTE	Tuner mute
4		Ground connection	44		Terminal (unused)
5		Ground connection	45		Terminal (unused)
6		Ground connection	46		Terminal (unused)
7		Ground connection	47	RDS-DATA	RDS control signal terminal
8		Ground connection	48		Terminal (unused)
9	PROTECTOR IN	Protector input	49	INHIBIT IN	Inhibit signal input
10	VREF+	Ground connection	50	DSP-READY	DSP control signal
11	VDD	Power supply terminal	51	DSP-RESET	DSP reset signal
12	OSC 2	Quartz oscillation terminal (8 MHz)	52	M/CS	Control signal from IC400
13	OSC 1	Quartz oscillation terminal (8 MHz)	53	M-RESET	Reset signal from IC400
14	VSS	Ground connection	54	M-STATUS	Status signal from IC400
15	X1	Ground connection	55	M-COMMAND	Command signal from IC400
16	X0	Terminal (unused)	56	M-CLK	Clock signal from IC400
17	MMOD	Ground connection	57		Terminal (unused)
18		Terminal (unused)	58		Terminal (unused)
19		Ground connection	59		Terminal (unused)
20		Ground connection	60		Terminal (unused)
21	DSP-COMMAND	DSP control signal terminal	61	SW-DATA	Data signal for source selector
22	DSP-STATUS	DSP control signal terminal	62	SW-CLK	Clock signal for source selector
23	DSP-CLK	DSP control signal terminal	63	VOL-STB	Strop signal for controlling volume
24		Ground connection	64	VOL-DATA	Data signal for controlling volume
25	RESET-IN	Reset signal input terminal	65	VOL-CLK	Clock signal for controlling volume
26	TUNER-CE	Tuner chip enable	66	SW-STB	Strop signal for source selector
27	TUNER-CLK	Tuner clock signal input	67		Terminal (unused)
28		Ground connection	68	SWF MUTE	Sub woofer mute
29	TUNER-DATA	Tuner control terminal	69	SURR	Terminal (unused)
30	RDS SCL	Clock signal (RDS)	70	FR-RELAY	Front speaker relay control
31	TUNER-IN	Tuner signal input terminal	71	CNTR-RELAY	Center speaker relay control
32	STEREO-IN	Stereo signal input terminal	72	SUR-RELAY	Rear speaker relay control
33	RDS-ST	Terminal (unused)	73		Terminal (unused)
34	M-BUSY	Busy signal from IC400 input	74		Ground connection
35	RDSCLOCKIN	Ground connection	75		Ground connection
36		Terminal (unused)	76		Ground connection
37		Terminal (unused)	77		Ground connection
38		Terminal (unused)	78	LED	Terminal (unused)
39	VIDEO1	VIDEO 1 signal	79	D.AUT LED	Indicate control (DIGITAL AUTO)
40	VIDEO2	VIDEO 2 signal	80	SURR LED	Indicate control (SURROUND)

■ MN102L25GCY(IC401):UNIT CPU

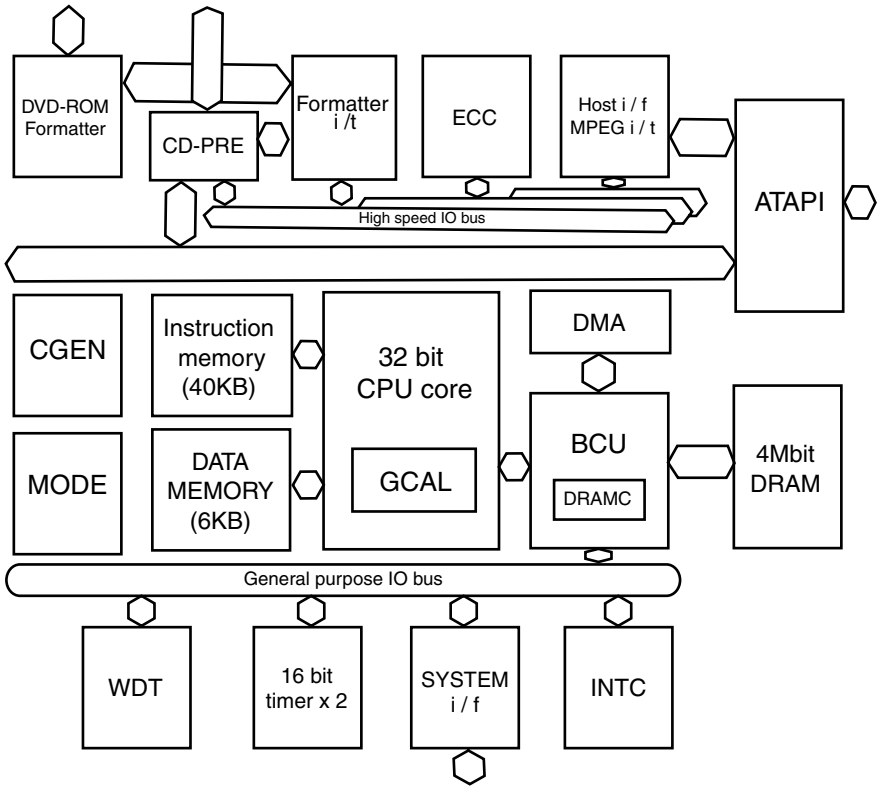
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	WAIT	I	Micon wait signal input	51	FGIN	I	Photo input
2	RE	O	Read enable	52	-		Non connect
3	MUTE	O	Driver mute	53	ADSCEN	O	Serial enable signal for ADSC
4	WEM	O	Write enable	54	VDD	-	Non connect
5	CS0	O	Non connect	55	FEPEN	O	Serial enable signal for FEP
6	CS1	O	Chip select for ODC	56	SLEEP	O	Standby signal for FEP
7	CS2	O	Chip select for ZIVA	57	BUSY	I	Communication busy
8	CS3	O	Chip select for outer ROM	58	REQ	O	Communication Request
9	FGCONT	O	Photo control	59	CIRCEN	O	CIRC command select
10	/SPKICK	O	Spin kick	60	HSSEEK	O	Seek select
11	LSIRST	O	LSI reset	61	VSS	-	Power supply
12	WORD	O	Bus selection input	62	EPCS	O	EEPROM chip select
13	A0	O	Address bus 0 for CPU	63	EPSK	O	EEPROM clock
14	A1	O	Address bus 1 for CPU	64	DPDI	I	EEPROM data input
15	A2	O	Address bus 2 for CPU	65	EPDO	O	EEPROM data output
16	A3	O	Address bus 3 for CPU	66	VDD	-	Power supply
17	VDD	-	Power supply	67	SCLK0	I	Communication clock
18	SYSCLK	O	System clock signal output	68	S2UDT	I	Communication input data
19	VSS	-	Power supply	69	U2SDT	O	Communication output data
20	XI	-	Non connect	70	CPSCK	O	Clock for ADSC serial
21	XO	-	Non connect	71	SDIN	I	ADSC serial data input
22	VDD	-	Power supply	72	SDOUT	O	ADSC serial data output
23	OSCI	I	Clock signal input(13.5MHz)	73	-	-	Non connect
24	OSCO	-	Non connect	74	-	-	Non connect
25	MODE	I	CPU Mode selection input	75	NMI	-	Non connect
26	A4	O	Address bus 4 for CPU	76	ADSCIRQ	I	Interrupt input of ADSC
27	A5	O	Address bus 5 for CPU	77	ODCIRQ	I	Interrupt input of ODC
28	A6	O	Address bus 6 for CPU	78	DECIRQ	I	Interrupt input of ZIVA
29	A7	O	Address bus 7 for CPU	79	WAKEUP	O	Non connect
30	A8	O	Address bus 8 for CPU	80	ODCIRQ2	I	Non connect
31	A9	O	Address bus 9 for CPU	81	ADSEP	I	Address data selection input
32	A10	O	Address bus 10 for CPU	82	RST	I	Reset input
33	A11	O	Address bus 11 for CPU	83	VDD	-	Power supply
34	VDD	-	Power supply	84	TEST1	I	Test signal 1 input
35	A12	O	Address bus 12 for CPU	85	TEST2	I	Test signal 2 input
36	A13	O	Address bus 13 for CPU	86	TEST3	I	Test signal 3 input
37	A14	O	Address bus 14 for CPU	87	TEST4	I	Test signal 4 input
38	A15	O	Address bus 15 for CPU	88	TEST5	I	Test signal 5 input
39	A16	O	Address bus 16 for CPU	89	TEST6	I	Test signal 6 input
40	A17	O	Address bus 17 for CPU	90	TEST7	I	Test signal 7 input
41	A18	O	Address bus 18 for CPU	91	TEST8	I	Test signal 8 input
42	A19	O	Address bus 19 for CPU	92	VSS	-	Power supply
43	VSS	-	Power supply	93	D0	I/O	Data bus 0 of CPU
44	A20	O	Address bus 20 for CPU	94	D1	I/O	Data bus 1 of CPU
45	TXSEL	O	TX Select	95	D2	I/O	Data bus 2 of CPU
46	TMPSN	O	Non connect	96	D3	I/O	Data bus 3 of CPU
47	-		Non connect	97	D4	I/O	Data bus 4 of CPU
48	ADPD	O	AD Power down	98	D5	I/O	Data bus 5 of CPU
49	-		Non connect	99	D6	I/O	Data bus 6 of CPU
50	TRVSW	I	Detection switch of traverse inside	100	D7	I/O	Data bus 7 of CPU

MN103007BGA (IC301) : Optical disc controller

1.Terminal layout



2.Block diagram



3.Function

MN103007BGA(1/2)

Pin NO.	Symbol	I/O	Function
1	HDD15	I/O	ATAPI data
2	HDD0	I/O	ATAPI data
3	HDD14	I/O	ATAPI data
4	5VDD		
5	HDD1	I/O	ATAPI data
6	HDD13	I/O	ATAPI data
7	HDD2	I/O	ATAPI data
8	VSS		
9	HDD12	I/O	ATAPI data
10	VDD		
11	HDD3	I/O	ATAPI data
12	HDD11	I/O	ATAPI data
13	HDD4	I/O	ATAPI data
14	HDD10	I/O	ATAPI data
15	5VDD		
16	HDD5	I/O	ATAPI data
17	HDD9	I/O	ATAPI data
18	VSS		
19	HDD6	I/O	ATAPI data
20	HDD8	I/O	ATAPI data
21	HDD7	I/O	ATAPI data
22	5VDD		
23	NRESET	I	ATAPI reset
24	MASTER	I/O	ATAPI master / slave selection
25	NINT0	O	System control interruption 0
26	NINT1	O	System control interruption 1
27	WAITODC	O	System control weight control
28	NMRST	O	System control reset
29	DASPST	I	DASP signal initializing
30	VDD		
31	OSCO2	I,O	VSS connection,OPEN
32	OSCI2	I,O	VSS connection, OPEN
33	UATASEL	I	VSS connection
34	VSS		
35	PVSSDRAM		
36	PVDODRAM		
37	CPUADR17	I	System control address
38	CPUADR18	I	System control address
39	VSS		
40	CPUADR15	I	System control address
41	CPUADR14	I	System control address
42	CPUADR13	I	System control address
43	CPUADR12	I	System control address
44	VDD		System control address
45	CPUADR11	I	System control address
46	CPUADR10	I	System control address
47	CPUADR9	I	System control address
48	CPUADR8	I	System control address
49	CPUADR7	I	System control address
50	CPUADR6	I	System control address
51	CPUADR5	I	System control address
52	CPUADR4	I	System control address
53	CPUADR3	I	System control address
54	CPUADR2	I	System control address
55	CPUADR1	I	System control address
56	VSS		GND
57	CPUADR0	I	System control address
58	NCS	I	System control chip selection
59	NWR	I	System control wright
60	NRD	I	System control lead
61	VDD		Apply 3V
62	CPUDT7		System control data
63	CPUDT6		System control data
64	PVPPDRAM	O	C=10000PF is connected between VSS
65	PTESTDRAM	I	VSS connected
66	OVDDDRAM		
67	PVSSDRAM		
68	CPUDT5		System control data
69	CPUDT4		System control data
70	CPUDT3		System control data
71	VSS		GND
72	CPUDT2		System control data
73	CPUDT1	I/O	System control data
74	CPUDT0	I/O	System control data
75	CLKOUT1	O	16.9/11.2/8.45MHz clock
76	VDD	-	Apply 3V
77	TEHLD	O	Mirror gate
78	DTRO	O	Data part frequency control switch
79	IDGT	O	Part CAPA switch
80	BDO	I	RF dropout / BCA data of making to binary
81	CPDET2	I	Outer side CAPA detection
82	CPDET1	I	Side of surroundings on inside
83	VSS		GND
84	MMOD	I	VSS connected
85	NRST	I	System reset
86	VDD	-	Apply 3V
87	CLKOUT2	O	16.9MHz clock
88	PLLOK	O	Frame mark detection
89	IDOHOLD	O	ID gate for tracking holding
90	JMPINH	O	Jump prohibition

MN103007BGA(2/2)

Pin NO.	Symbol	I/O	Function
91	LG	O	Land / group switch
92	NTRON	I	Tracking ON
93	DACDATA	O	Cereal output
94	DACLRCK	O	L and R identification output
95	DACCLK	I	Clock for cereal output
96	IPFLAG	I	Interpolation flag input
97	BLKCK	I	Sub-code,Block clock input
98	LRCK	I	L and R identification signal output
99	VSS		
100	OSCI1	I,O	16.9MHz oscillation
101	OSCO1	I,O	16.9MHz oscillation
102	VDD		
103	PVSS		
104	PVDD		
105	P1	I/O	Terminal MASTER polarity switch input
106	P0	I/O	CIRC-RAM OVER/UNDER Interruption signal input
107	VSS		
108	SBCK	O	Sub-code, Clock output for serial input
109	SUBC	I	Sub-code, Cereal input
110	XCLDCK	I	Sub-code, Frame clock input
111	CHCK4	I	Read clock to DAT3~0(Output of dividing frequency four from ADSC)
112	DAT3	I	Read data from DISC (PAralle output from ADSC)
113	DAT2	I	
114	DAT1	I	
115	DAT0	I	
116	VDD		
117	SCLOCK	I/O	Debugging cereal clock (270 Ω pull up)
118	SDATA	I/O	Debugging cereal data (270 Ω pull up)
119~122	MONI3~0	O	Internal goods title monitor
123	VSS		
124	NEJECT	I	Eject detection
125	5VDD		
126	NTRYCL	I	Tray close detection
127	NDASP	I/O	ATAPI Drive active/ Sulave connection I/O
128	NCS3FX	I	ATAPI host chip selection
129	NCS1FX	I	ATAPI host chip selection
130	VDD		
131	DA2	I/O	ATAPI host address
132	DA0	I/O	ATAPI host address

Pin NO.	Symbol	I/O	Function
133	NPDIAG	I/O	ATAPI slave master diagnosis input
134	VSS		
135	DA1	I/O	ATAPI host address
136	IOCS16	O	ATAPI output of selection of width of host data bus
137	INTRQ	O	ATAPI host interruption output
138	5VDD		
139	NDMACK	I	ATAPI host DMA response
140	IORDY	O	ATAPI host ready output
141	NIORD	I	ATAPI host read
142	VSS		
143	NIOWR	I/O	ATAPI host writes
144	DMARQ	O	ATAPI host DMA demand

MN103007BGA(3/4)

Pin NO.	Symbol	I/O	Function
91	LG	O	Land / group switch
92	NTRON	I	Tracking ON
93	DACDATA	O	Cereal output
94	DACLRCK	O	L and R identification output
95	DACCLK	I	Clock for cereal output
96	IPFLAG	I	Interpolation flag input
97	BLKCK	I	Sub-code,Block clock input
98	LRCK	I	L and R identification signal output
99	VSS		
100	OSCI1	I,O	16.9MHz oscillation
101	OSCO1	I,O	16.9MHz oscillation
102	VDD		
103	PVSS		
104	PVDD		
105	P1	I/O	Terminal MASTER polarity switch input
106	P0	I/O	CIRC-RAM OVER/UNDER Interruption signal input
107	VSS		
108	SBCK	O	Sub-code, Clock output for serial input
109	SUBC	I	Sub-code, Cereal input
110	XCLDCK	I	Sub-code, Frame clock input
111	CHCK4	I	Read clock to DAT3~0 (Output of dividing frequency four from ADSC)
112	DAT3	I	Read data from DISC (PAralle output from ADSC)
113	DAT2	I	
114	DAT1	I	
115	DAT0		
116	VDD		
117	SCLOCK	I/O	Debugging cereal clock (270Ω pull up)
118	SDATA	I/O	Debugging cereal data (270Ω pull up)
119	MONI3	O	Internal goods title monitor
120	MONI2	O	
121	MONI1	O	
122	MONI0	O	
123	VSS		
124	NEJECT	I	Eject detection
125	5VDD		
126	NTRYCL	I	Tray close detection
127	NDASP	I/O	ATAPI Drive active/ Sulave connection I/O
128	NCS3FX	I	ATAPI host chip selection
129	NCS1FX	I	ATAPI host chip selection
130	VDD		
131	DA2	I/O	ATAPI host address
132	DA0	I/O	ATAPI host address

MN103007BGA(4/4)

Pin NO.	Symbol	I/O	Function
133	NPDIAG	I/O	ATAPI slave master diagnosis input
134	VSS		
135	DA1	I/O	ATAPI host address
136	IOCS16	O	ATAPI output of selection of width of host data bus
137	INTRQ	O	ATAPI host interruption output
138	5VDD		
139	NDMACK	I	ATAPI host DMA response
140	IORDY	O	ATAPI host ready output
141	NIORD	I	ATAPI host read
142	VSS		
143	NIOWR	I/O	ATAPI host writes
144	DMARQ	O	ATAPI host DMA demand

■ MN173222DF (IC400): Operation Switches and Fluorescent Display Controller

1. Key matrix

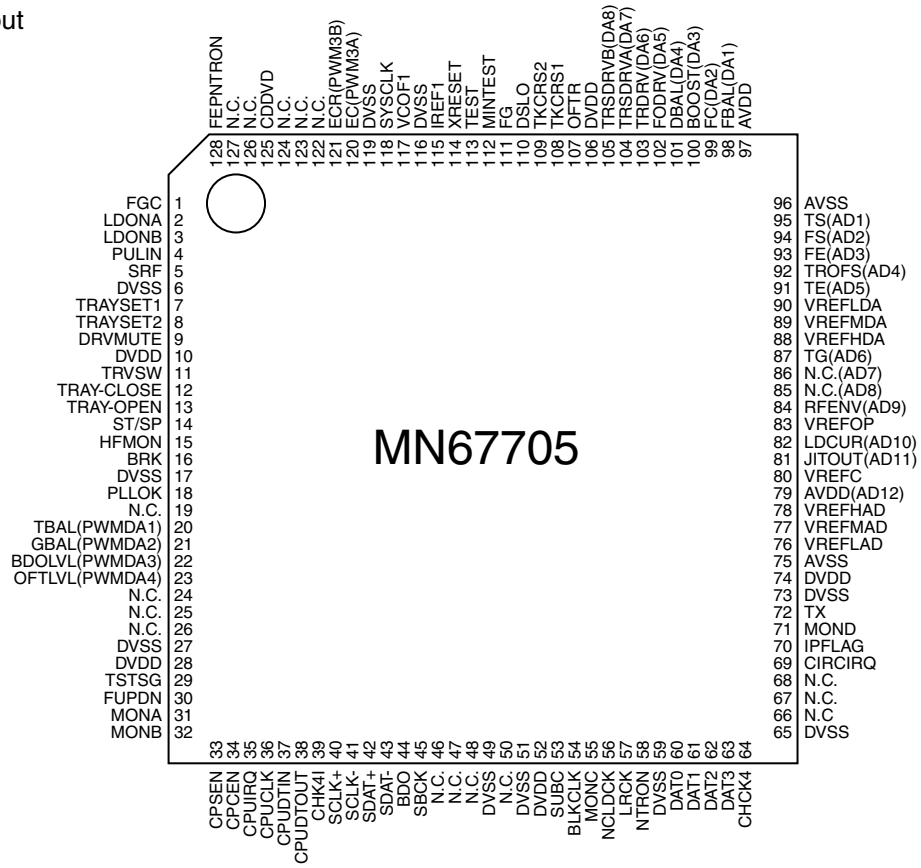
	KEY OUT 0	KEY OUT1	KEY OUT 2	KEY OUT 3	KEY OUT 4
KEY IN 0	POWER	DSP MODE	DVD	◄	CD
KEY IN 1	ADJUST	SURROUND	TV SOUND/DBS	►	PHONE
KEY IN 2	SETTING	ANALOG/DIGITAL	VCR	▲	TAPE/MD
KEY IN 3	MEMORY	———	ONE TOUCH OP. /INPUT ATT.	▼	FM/AM

2. Pin function

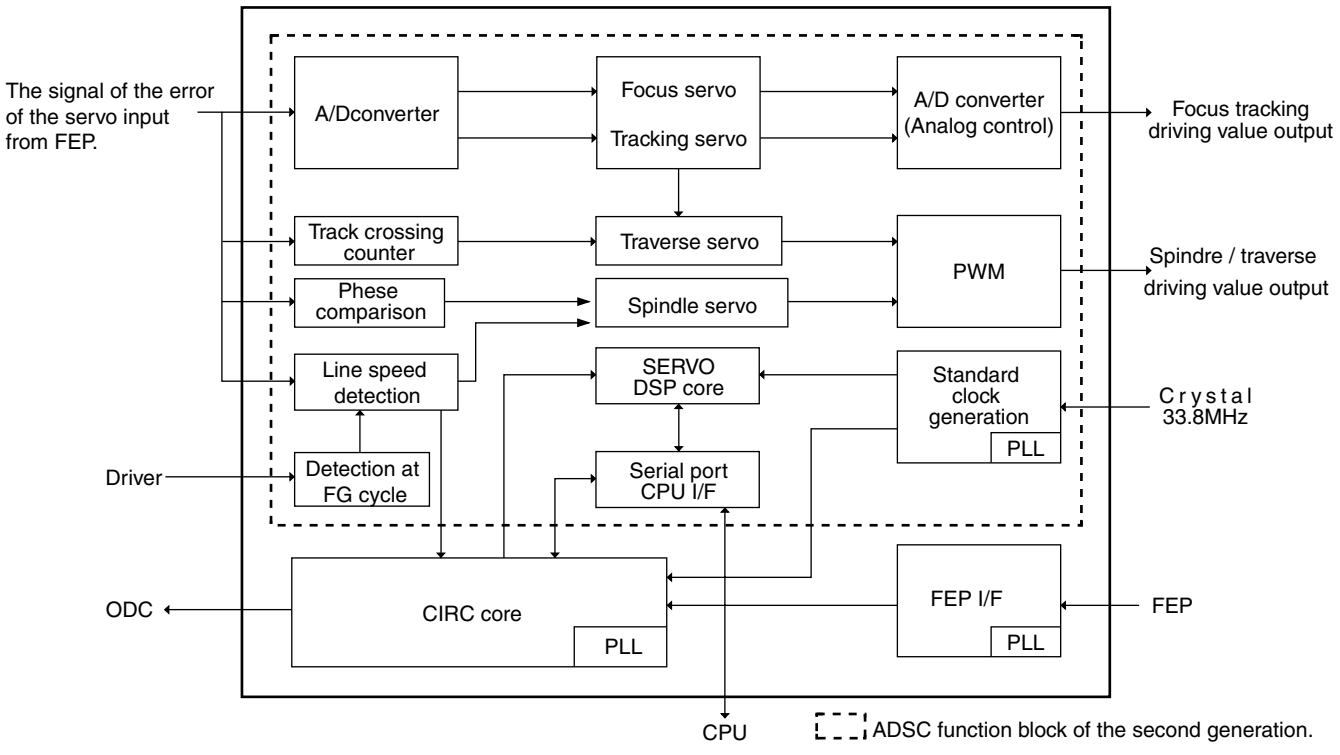
Pin No.	Symbol	I/O	Functions
1-22	S22-S1	O	Segment control signal output
23	VPP	-	Power supply terminal
24-29	KO0-5/G14-9	O	Key matrix output/grid control signal output
30,31	G8,G7	O	Grid control signal output
32,33	SW0,1/G6,5	O	Grid control signal output
34-36	G4-G2	O	Grid control signal output
37-39	G16,15,1	O	Grid control signal output
40,41		-	Ground connection
42	JOG1,2	I	JOG volume control input
44	MBUSY	I	Busy signal from IC401
45	MCLK	I	Clock signal from IC401
46	COMMAND	I	Command data input from IC401
47	STATUS	O	Status signal output to IC401
48	M/CS	I	Chip select signal input from IC401
49	RM	I	Remote control signal input
50	VCRI	I	AV COMPULINK input (VCR)
51	DCSI	I	COMPULINK signal input
52	DCSO	O	COMPULINK signal output
53	VCRO	O	AV COMPULINK output (VCR)
54	TVO	O	AV COMPULINK output (TV)
55	TVC	O	AV COMPULINK control output
56,57		-	Ground connection
58	POWER	-	Power supply terminal
59	STANDBY	O	Stand-by indicator control
60-63	KI3-KI0	I	Key matrix input
64-67	S36-S33	O	Segment control signal output
68	RST	I	Reset signal input
69	X1		Ground connection
70	X2		Terminal (unused)
71	VSS	-	Ground connection
72,73	OSC2,1	-	Quartz oscillation terminal (6 MHz)
74	VDD	-	Power supply terminal
75-84	S32-S23	O	Segment control signal output

■ MN67705EA (IC201) : Digital servo controller

1.Terminal layout



2.Block diagram



3.Pin function

MN67705EA (1/3)

Pin No.	Symbol	I/O	Function
1	FGC	0	H fixation
2	LDONA	O	Laser drive controlA (ON / OFF)
3	LDONB	O	Laser drive controlB (ON / OFF)
4	PULIN	O	DSL and PLL high boost signal (FEP)
5	SRF	O	Head amplifier gain H/L selection
6	DVSS	—	Ground for digital circuit
7	TRAYSET1	O	Tray drive ON/OFF and direction control
8	TRAYSET2	O	Tray drive ON/OFF and direction control
9	DRVMUTE	O	Drive IC mute control
10	DVDD	—	Power supply for digital circuit
11	TRVSW	I	Surroundings position detection in traverse
12	TRAY-CLOSE	I	Tray close detection SW
13	TRAY-OPEN	I	Tray opening detection SW
14	ST/SP	O	Spindle motor drive switch (START /STOP)
15	HFMON	O	High cycle module control
16	BRK	O	Spindle motor IC short brake control
17	DVSS	—	Ground for digital circuit
18	PLLOK	I	SYNC detection (DVD : 18T / CD : 22T)
19	N.C.	O	
20	TBAL(PWMDA1)	O	Tracking balance (FEP)
21	GBAL(PWMDA2)	O	Tangential balance (FEP)
22	BDOLVL(PWMDA3)	O	BDO slice level (FEP)
23	OFTLVL(PWMDA4)	O	Off-track error slice level (FEP)
24	N.C.	O	
25	N.C.	O	
26	N.C.	O	
27	DVSS	—	Ground for digital circuit
28	DVDD	—	Power supply for digital circuit
29	TSTSG	O	Self calibration signal (FEP)
30	FUPDN	O	Signal of frequency UP/DOWN of PLL (FEP)
31	MONA	O	Monitor terminal A
32	MONB	O	Monitor terminal B
33	CPSEN	I	Servo DSP cereal I/F chip selection (SYSCOM)
34	CPCEN	I	CIRC cereal I/F chip selection (SYSCOM)
35	CPUIRQ	O	Interrupt request to silicon (SYSCOM)
36	CPUCLK	I	Silicon cereal I/F clock (SYSCOM)
37	CPUDTIN	I	Silicon cereal I/F data input (SYSCOM)
38	CPUDTOUT	O	Silicon cereal I/F data output (SYSCOM)
39	CHK4I	I	Connects with unused DVSS
40	SCLK+	I	Lead channel clock differential motion signal (positive)
41	SCLK-	I	Lead channel clock differential motion signal (negative)
42	SDAT+	I	Lead channel data differential motion signal (positive)
43	SDAT-	I	Lead channel data differential motion signal (negative)
44	BDO	I	BDO + BCA (FEP)
45	SBCK	I	CD sub-code data shift clock (ODC)
46	IREF2	—	Connects with unused DVSS

MN67705EA (2/3)

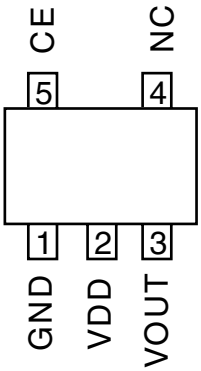
Pin No.	Symbol	I/O	Function
47	IREF3	—	Connects with unused DVSS
48	VCOF2	—	Connects with unused DVSS
49	DVSS	—	Ground for digital circuit
50	VCOE3	—	Connects with unused DVSS
51	DVSS	—	Ground for digital cirucuit
52	DVDD	—	Power supply for digital cirucuit
53	SUBC	O	CD sub-code (ODC)
54	BLKCLK	O	CD sub-code synchronous signal (ODC)/Jump output of one at DVD
55	MONC	O	Monitor terminal C
56	NCLDCK	O	Sub-code data freme clock (ODC)
57	LRCK	O	LR channnel data strove circCIRC(ODC)
58	NTRON	O	L: Tracking ON (ODC)
59	DVSS	—	Ground for digital cirucuit
60	DAT0	O	CIRC / Binary making DVD data output
61	DAT1	O	CIRC / Binary making DVD data output
62	DAT2	O	CIRC / Binary making DVD data output
63	DAT3	O	CIRC / Binary making DVD data output
64	CHCK4	O	Synchronous clock of DAT0～3
65	DVSS	—	Ground for digital circuit
66	DACCLK	O	
67	DACLRCK	I	Connects with unused DVSS
68	DACDATA	I	Connects with unused DVSS
69	CIRCIRQ	O	RAM with built-in CIRC exceeds / Underflow interrupt
70	IPFLAG	O	CIRC error flag
71	MOND	O	Monitor terminal D
72	TX	O	Digital audio interface
73	DVSS	—	Ground for digital cirucuit
74	DVDD	—	Power supply for digital cirucuit
75	AVSS	—	Ground for analog cirucuit
76	VREFLAD	—	AD subordinate position standard voltage (0.6±0.1v)
77	VREFMAD	—	It is a place standard voltage in AD (1.4±0.1V)
78	VREFHAD	—	High-ranking AD standard voltage (2.2±0.1V)
79	AVDD	—	Power supply for analog circuit
80	VREFC(AD12)	I	
81	JIOUT(AD11)	I	Jitter signal(FEP)
82	LDCUR(AD10)	I	Laser drive current signal
83	VREFOP	—	Operation amplifier standard voltage(VREFC)
84	RFENV(AD9)	I	RFENV(FEP)
85	N.C.(AD8)	I	Connects with VREFC
86	N.C.(AD7)	I	Connects with VREFC
87	TG(AD6)	I	Tangential Phase difference (FEP)
88	VREFHDA	—	High-ranking AD standard voltage (2.2±0.1V)
89	VREFMDA	—	It is a place standard voltage in AD (1.4±0.1V)
90	VREFLDA	—	AD subordinate position standard voltage (0.6±0.1v)
91	TE(AD5)	I	Tracking error (FEP)
92	TROFS(AD4)	I	Tracking drive IC input offset
93	FE(AD3)	I	Focus error (FEP)

MN67705EA(3/3)

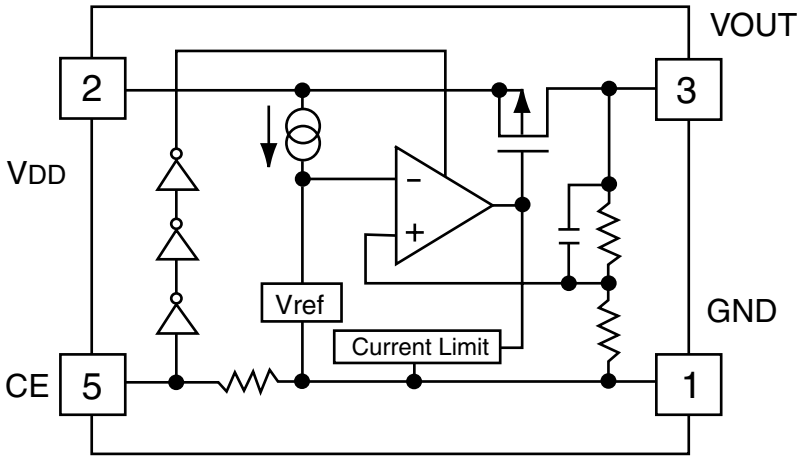
Pin No.	Symbol	I/O	Function
94	FS(AD2)	I	FS (FEP)
95	TS(AD1)	I	TS (FEP)
96	AVSS	—	Ground for analog cirucuit
97	AVDD	—	Power supply for analog circuit
98	FBAL(DA1)	O	Focus balance(FEP)
99	FC(DA2)	O	Cutting off frequency (FEP)
100	BOOST(DA3)	O	Amount of boost (FEP)
101	TBAL(DA4)	O	DSL offset balance (FEP)
102	FODRV(DA5)	O	Focus drive
103	TRDRV(DA6)	O	Tracking drive
104	TRSDRVA(DA7)	O	Traverse drive A aspect
105	TRSDRVB(DA8)	O	Traverse drive B aspect
106	DVDD	—	Power supply for digital cirucuit
107	OFTR	I	Off-track error signal (FEP)
108	TKCRS1	I	Track crossing signal 1 (FEP)
109	TKCRS2	I	Track crossing signal 2 (FEP)
110	DSLO	I	Binary making data slice signal (FEP)
111	FG	I	FG signal input (spindle motor driver)
112	MINTEST	—	Connects with DVSS
113	TEST	—	Connects with DVSS
114	XRESET	I	Reset L : Reset
115	IREF1	—	VCO reference current 1(for SYSCLK)
116	DVSS	—	Ground for digital circuit)
117	VCOF1	—	VCO control voltage 1 (for SYSCLK)
118	SYSCLK	I	33.8MHz system clock input
119	DVSS	—	Ground for digital circuit
120	EC(PWM3A)	O	Spindle motor drive
121	ECR(PWM3B)	O	
122	N.C.(PWM3A)	O	
123	N.C.(PWM2B)	O	
124	N.C.(PWM1A)	O	
125	CDDVD	O	CD/DVD control signal (FEP) CD : H DVD : L
126	N.C.(PWM0A)	O	
127	N.C.(PWM0B)	O	
128	FEPNTRON	O	Tracking ON (FEP)

■ RN5RZ20BA-X(IC102) : High cycle module

1.Terminal layout



2.Block diagram

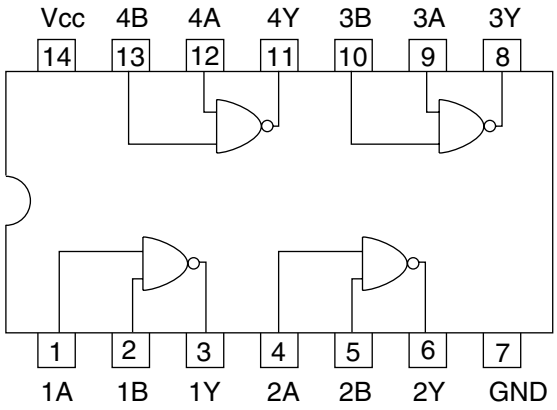


3.Pin function

Pin No.	Pin name	Function
1	GND	Ground terminal
2	VDD	Input terminal
3	VOUT	Output terminal
4	NC	No connection
5	CE	Chip enable terminal

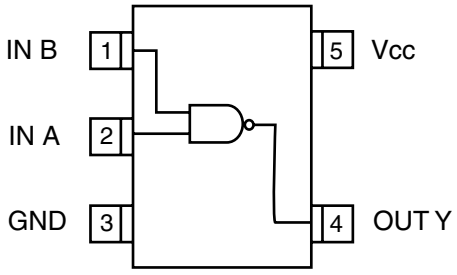
■ TC74VHC00FT-X(IC503) : Wright timing control

1.Terminal layout / Block diagram



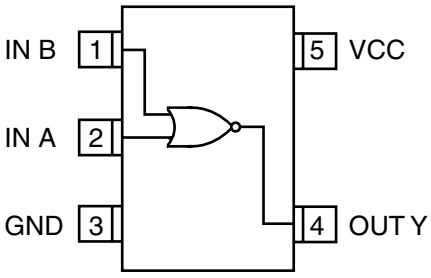
■ TC7SH04FU (IC107) :

1. Terminal layout



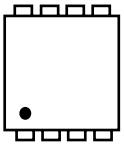
■ TC7SH32FU-X(IC312) : Timing control

1.Terminal layout

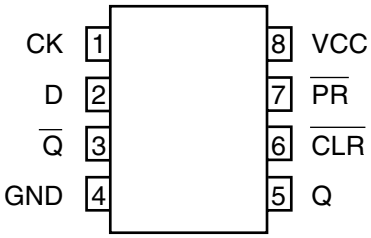


■ TC7WH74FU-X(IC374) : Clock buffer

1.Terminal layout

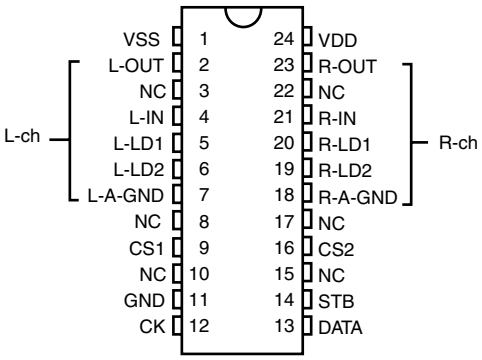


2.Block diagram

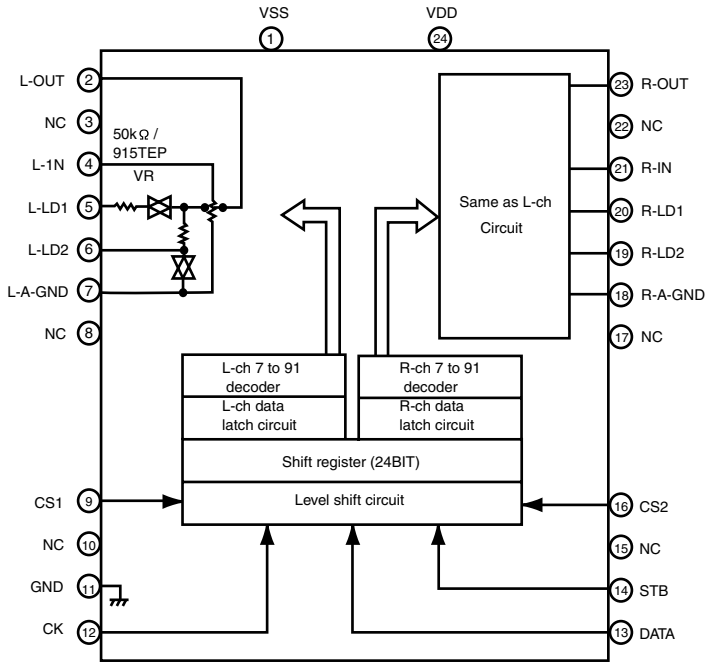


■ TC9459F (IC331,IC332,IC333) : Electronic volume control

1.Terminal layout



2. Block diagram

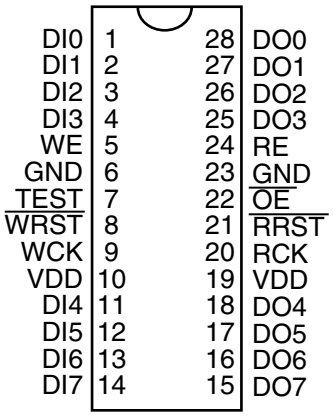


3.Pin function

Pin No.	Symbol	Function	Pin No.	Symbol	Function
1	VSS	Negative power supply pin	13	DATA	Data input pin
2	L-OUT	Volume output pin	14	STB	Strobe input pin
3	NC	No connection	15	NC	No connection
4	NC	No connection	16	CS2	Chip select input pin
5	L-LD1	Loudness tap output pin	17	NC	No connection
6	L-LD2	Loudness tap output pin	18	R-A-GND	Analog GND pin
7	L-A-GND	Analog GND pin	19	R-LD2	Loudness tap output pin
8	NC	No connection	20	R-LD1	Loudness tap output pin
9	CS1	Chip select input pin	21	R-IN	Volume input pin
10	NC	No connection	22	NC	No connection
11	NC	No connection	23	R-OUT	Volume output pin
12	CK	Clock input pin	24	VDD	Positive power supply pin

■ UPD42280GU-30-X(IC552):2M RAM

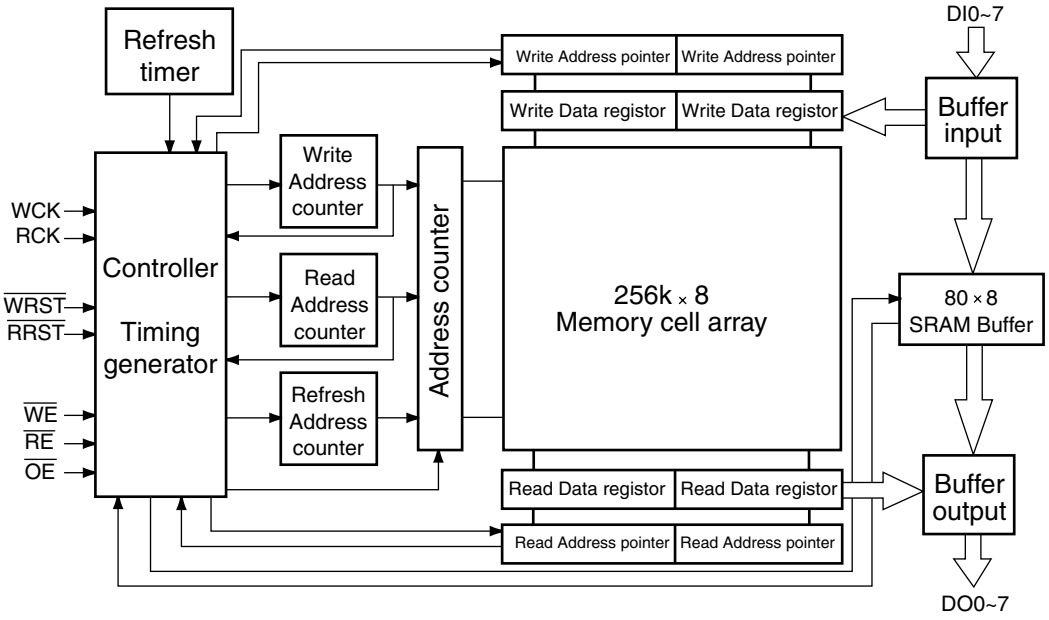
1.Terminal Layout



2.Pin Function

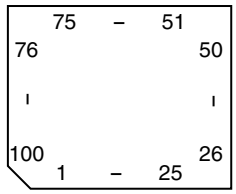
Pin No.	Symbol	I/O	Pin Function
1~4	DI0~3	I	Data input
5	WE	I	Write enable signal input
6	GND	-	Connect to GND
7	TEST	-	Connect to GND
8	$\overline{\text{WRST}}$	I	Write reset signal input
9	WCK	I	Write clock signal input
10	VDD	-	Power supply +5V
11~14	DI4~7	I	Data input
15~18	DO7~4	O	Data output
19	VDD	-	Power supply +5V
20	RCK	I	Read clock signal input
21	$\overline{\text{RRST}}$	I	Read reset signal input
22	$\overline{\text{OE}}$	-	Connect to GND
23	GND	-	Connect to GND
24	RE	I	Read enable signal input
25~28	DO3~0	O	Data output

3.Block Diagrams



■ UPD784215AGC102(IC671): DSP Controler

1. Terminal layout

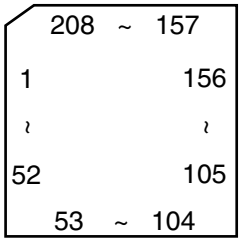


2. Pin function

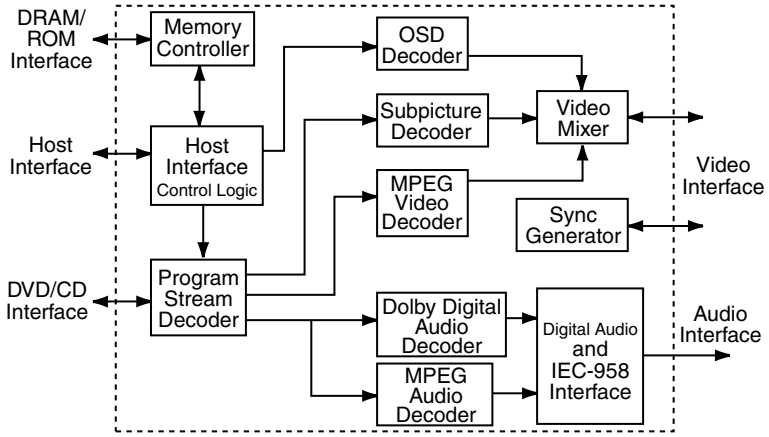
Pin No.	Symbol	I/O	Functions
1-8		-	Terminal (unused)
9	VDD	-	Power supply terminal
10	X2	O	Quartz oscillation terminal 6.14 MHz (Main clock)
11	X1	I	Quartz oscillation terminal 6.14 MHz (Main clock)
12	VSS	-	Ground connection
13	XT2	-	Terminal (unused)
14	XT1	-	Terminal (unused)
15	$\overline{\text{RESET}}$	I	Reset signal input
16	$\overline{\text{AUTODATA}}$	I	DSP general-purpose port output interruption
17	LOCK	I	DSP general-purpose port output interruption
18	DIGITAL0	I	DSP general-purpose port output interruption
19	FORMAT	I	DSP general-purpose port output interruption
20	CHANNEL	I	DSP general-purpose port output interruption
21	ERR	I	DSP general-purpose port output interruption
22	$\overline{\text{RSTDET}}$	I	DSP general-purpose port output interruption
23	AVDD	-	Power supply terminal
24	AVREF0	-	Ground connection
25-32		-	Ground connection
33	AVSS	-	Ground connection
34,35		-	Terminal (unused)
36		-	Power supply terminal
37,38	RX,TX	-	Terminal (unused)
39		-	Terminal (unused)
40	DSPCOM	I	Communication port with IC401
41	DSPSTS	O	Status communication port to IC401
42	$\overline{\text{DSPCLK}}$	I	Clock input from IC401
43	DSPRDY	I	Ready signal input from IC401
44		-	Terminal (unused)
45,46	MIDIO_IN/OUT	I/O	DSP-microcomputer I/F
47	$\overline{\text{MICK}}$	O	Clock signal to IC631
48	$\overline{\text{MICS}}$	O	Chip select to IC631
49	$\overline{\text{MILP}}$	O	DSP-microcomputer I/F
50	$\overline{\text{MIACK}}$	O	DSP-microcomputer I/F
51,52		-	Terminal (unused)
53	$\overline{\text{DSPRST}}$	O	DSP reset signal output
54-63		-	Terminal (unused)
64,65	CDTI/CDTO	I/O	CODEC-Microcomputer I/F
66	$\overline{\text{CCLK}}$	O	Clock signal to IC601
67	$\overline{\text{CS}}$	O	Chip select to IC601
68	XTS	O	OSC select
69,70		-	Terminal (unused)
71	$\overline{\text{PD}}$	O	Reset signal input
72	GND	-	Ground connection
73-80		-	Terminal (unused)
81	VDD	-	Power supply terminal
82	$\overline{\text{3D-ON}}$	-	Terminal (unused)
83	3D-ON	O	Switching terminal to where the surround channel is output
84	ANA/T-TONE	O	Test tone control
85	REF-MIX	O	Controlling terminal to where the LFE channel is output
86		-	Terminal (unused)
87	D.MUTE	O	MUTE for the digital OUT terminal
88	$\overline{\text{S.MUTE}}$	O	MUTE for the audio signal
89		-	Terminal (unused)
90-93	ASW1-4	O	Digital input selection
94	TEST	-	Test terminal
95-100		-	Terminal (unused)

■ ZIVA3-PA1(IC501):AV DECODER

1.Terminal Layout



2.Block Diagrams



3.Pin Function (1/3)

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	TEST PINO	-	Test pin	26	ARAM-DATA5	I/O	Non used
2	HDATA0	I/O	System control data I/O (IC301)	27	E-VDD	-	Power supply
3	HDATA1	I/O	System control data I/O (IC301)	28	ARAM-DATA6	I/O	Non used
4	HDATA2	I/O	System control data I/O (IC301)	29	E-VSS	-	Connect to GND
5	E-VDD	-	Power supply	30	ARAM-DATA7	I/O	Non used
6	HDATA3	I/O	System contorl data I/O (IC301)	31	ARAM-ADDR0	-	Connect to TP550
7	E-VSS	-	Connect to GND	32	ARAM-ADDR1	-	Connect to TP551
8	HDATA4	I/O	System control data I/O (IC301)	33	ARAM-ADDR2	-	Connect to TP552
9	HDATA5	I/O	System control data I/O (IC301)	34	ARAM-ADDR3	-	Connect to TP553
10	HDATA6	I/O	System control data I/O (IC301)	35	ARAM-ADDR4	-	Connect to TP554
11	HDATA7	I/O	System control data I/O (IC301)	36	E-VDD	-	Power supply
12	I-VDD	-	Power supply	37	ARAM-ADDR5	-	Connect to TP555
13	$\overline{\text{RST}}$	I	Reset signal input	38	E-VSS	-	Connect to GND
14	I-VSS	-	Connect to GND	39	ARAM-ADDR6	-	Connect to TP556
15	$\overline{\text{WAIT}}$	I	Wait control for IC509	40	I-VDD	-	Power supply
16	$\overline{\text{INT}}$	O	Host interrupt output for ATAPI	41	ARAM-ADDR7	-	Connect to TP557
17	E-VDD	-	Power supply	42	I-VSS	-	Connect to GND
18	$\overline{\text{ARAM-OE}}$	-	Connect to TP540	43	ARAM-ADDR8	-	Connect to TP558
19	E-VSS	-	Connect to GND	44	ARAM-ADDR9	-	Connect to TP559
20	$\overline{\text{ARAM-WE}}$	-	Connect to TP541	45	ARAM-ADDR10	-	Connect to TP560
21	ARAM-DATA0	I/O	Non used	46	ARAM-ADDR11	-	Connect to TP561
22	ARAM-DATA1	I/O	Non used	47	E-VDD	-	Power supply
23	ARAM-DATA2	I/O	Non used	48	ARAM-ADDR12	-	Connect to TP562
24	ARAM-DATA3	I/O	Non used	49	E-VSS	-	Connect to GND
25	ARAM-DATA4	I/O	Non used	50	ARAM-ADDR13	-	Connect to TP563

Pin Function (2/3)

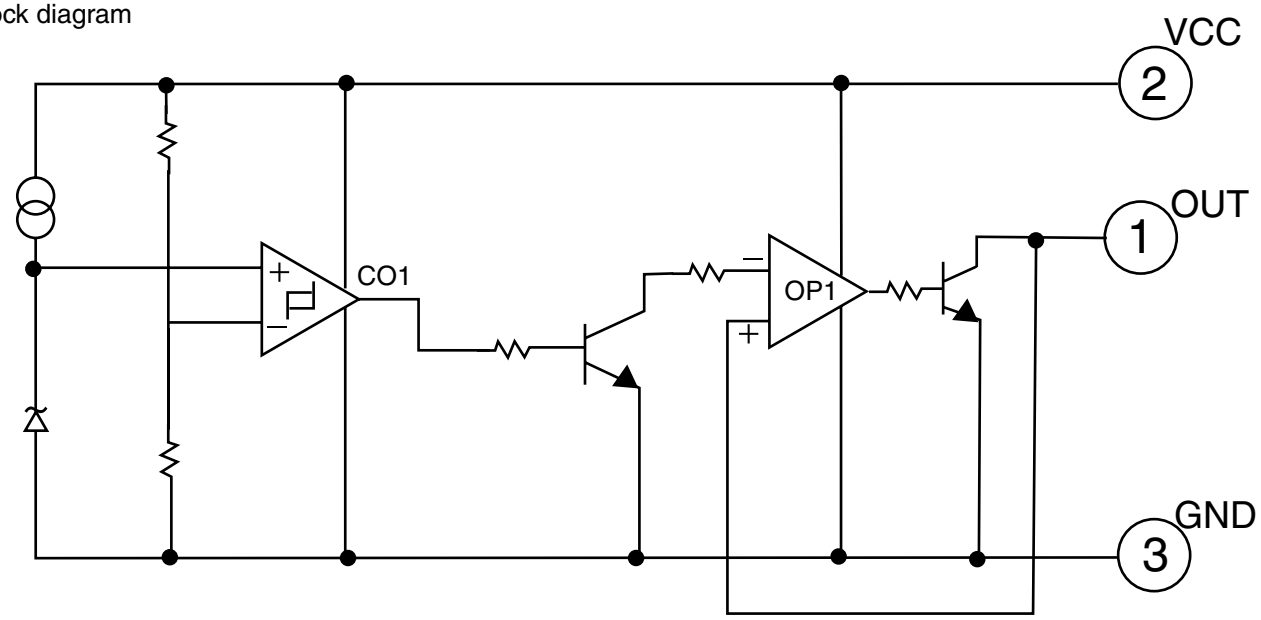
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
51	ARAM-ADDR14	-	Connect to TP564	97	E-VSS	-	Connect to GND
52	TEST-PIN1	-	Test pin	98	M-ADDR11	O	Address output to IC508,504
53	M-DATA15	I/O	Data bus I/O to IC508,IC504	99	M-ADDR8	O	Address output to IC508,504
54	M-DATA0	I/O	Data bus I/O to IC508,IC504	100	M-ADDR10	O	Address output to IC508,504
55	E-VDD	-	Power supply	101	E-VDD	-	Power supply
56	M-DATA14	I/O	Data bus I/O to IC508,IC504	102	M-ADDR7	O	Address output to IC508,504
57	E-VSS	-	Connect to GND	103	E-VSS	-	Connect to GND
58	M-DATA1	I/O	Data bus I/O to IC508,IC504	104	M-ADDR0	O	Address output to IC508,504
59	M-DATA13	I/O	Data bus I/O to IC508,IC504	105	M-ADDR6	O	Address output to IC508,504
60	M-DATA2	I/O	Data bus I/O to IC508,IC504	106	M-ADDR1	O	Address output to IC508,504
61	E-VDD	-	Power supply	107	E-VDD	-	Power supply
62	M-DATA12	I/O	Data bus I/O to IC508,IC504	108	M-ADDR5	O	Address output to IC508,504
63	E-VSS	-	Connect to GND	109	E-VSS	-	Connect to GND
64	M-DATA3	I/O	Data bus I/O to IC508,IC504	110	M-ADDR2	O	Address output to IC508,504
65	I-VDD	-	Power supply	111	M-ADDR4	O	Address output to IC508,504
66	M-DATA11	I/O	Data bus I/O to IC508,IC504	112	M-ADDR3	O	Address output to IC508,504
67	I-VSS	-	Connect to GND	113	E-VDD	-	Power supply
68	M-DATA14	I/O	Data bus I/O to IC508,IC504	114	M-ADDR12	-	Connect to TP513
69	E-VDD	-	Power supply	115	E-VSS	-	Connect to GND
70	M-DATA10	I/O	Data bus I/O to IC508,IC504	116	M-ADDR13	-	Connect to TP514
71	E-VSS	-	Connect to GND	117	I-VDD	-	Power supply
72	M-DATA5	I/O	Data bus I/O to IC508,IC504	118	M-ADDR14	-	Connect to TP515
73	M-DATA9	I/O	Data bus I/O to IC508,IC504	119	I-VSS	-	Connect to GND
74	M-DATA6	I/O	Data bus I/O to IC508,IC504	120	M-ADDR15	-	Connect to TP516
75	E-VDD	-	Power supply	121	M-ADDR16	-	Connect to TP517
76	M-DATA8	I/O	Data bus I/O to IC508,IC504	122	M-ADDR17	-	Connect to TP518
77	E-VSS	-	Connect to GND	123	E-VDD	-	Power supply
78	M-DATA7	I/O	Data bus I/O to IC508,IC504	124	M-ADDR18	-	Connect to TP519
79	LDQM	O	Lower DQ mask enable	125	E-VSS	-	Connect to GND
80	UDQM	O	Upper DQ mask enable	126	M-ADDR19	-	Connect to TP520
81	E-VDD	-	Power supply	127	M-ADDR20	-	Connect to TP521
82	$\overline{\text{MWE}}$	O	Write enable	128	$\overline{\text{ROM-CS}}$	-	Connect to TP522
83	E-VSS	-	Connect to GND	129	TEST-PIN2	-	Test pin
84	SD-CLK	O	System clock signal output	130	OSD-CLK	-	Connect to TP523
85	$\overline{\text{SD-CAS}}$	O	column address strobe	131	OSD-DATA0	-	Connect to TP525
86	$\overline{\text{SD-RAS}}$	O	Row address strobe	132	OSD-DATA1	-	Connect to TP526
87	E-VDD	-	Power supply	133	TEST-PIN3	-	Test pin
88	$\overline{\text{SD-CS1}}$	O	Chip select output to IC508	134	E-VDD	-	Power supply
89	E-VSS	-	Connect to GND	135	OSD-DATA2	-	Connect to TP528
90	$\overline{\text{SD-CSO}}$	O	Chip select output to IC504	136	E-VSS	-	Connect to GND
91	I-VDD	-	Power supply	137	OSD-DATA3	-	Connect to TP529
92	$\overline{\text{EDO-CAS}}$	-	Connect to TP511	138	TEST-PIN4	-	Test pin
93	I-VSS	-	Connect to GND	139	OSD-BLK1	-	Connect to TP531
94	$\overline{\text{EDO-RAS}}$	-	Connect to TP512	140	OSDVC1	-	Connect to TP532
95	E-VDD	-	Power supply	141	TEST-PIN5	-	Test pin
96	M-ADDR9	O	Address output to IC508,504	142	VDATA0	O	DVD image signal output

Pin Function (3/3)

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
143	VDATA1	O	DVD image signal output	176	A-VDD	-	Connect to TP507
144	I-VDD	-	Power supply	177	VCLK	I/O	Dot clock signal output (27MHz)
145	VDATA2	O	DVD image signal output	178	SYSCLK	-	Connect to TP505
146	I-VSS	-	Connect to GND	179	A-VSS	-	Connect to GND
147	TEST-PIN6	-	Test pin	180	DVD-DATA0	I	ATAPI data I/O to IC301
148	VDATA3	O	DVD image signal output	181	E-VDD	-	Power supply
149	E-VDD	-	Power supply	182	DVD-DATA1	I	ATAPI data I/O to IC301
150	VDATA4	O	DVD image signal output	183	E-VSS	-	Connect to GND
151	E-VSS	-	Connect to GND	184	DVD-DATA2	I	ATAPI data I/O to IC301
152	VDATA5	O	DVD image signal output	185	DVD-DATA3	I	ATAPI data I/O to IC301
153	TEST-PIN7	-	Test pin	186	DVD-DATA4	I	ATAPI data I/O to IC301
154	VDATA6	O	DVD image signal output	187	DVD-DATA5	I	ATAPI data I/O to IC301
155	VDATA7	O	DVD image signal output	188	DVD-DATA6	I	ATAPI data I/O to IC301
156	TEST-PIN8	-	Test pin	189	DVD-DATA7	I/O	ATAPI data I/O to IC301
157	$\overline{\text{HSYNC}}$	I/O	Horizontal synchronous signal output	190	TEST-PIN10	-	Test pin
158	$\overline{\text{VSYNC}}$	I/O	Vertical synchronous signal output	191	V-REQUEST	O	Master/Sleave Selection for ATAPI
159	IEC-958	O	Digital audio data output	192	V-STROBE	I	Host address for ATAPI
160	E-VDD	-	Power supply	193	I-VDD	-	Power supply
161	DA-DATA0	O	Data output to IC702	194	A-REQUEST	-	Connect to TP539
162	E-VSS	-	Connect to GND	195	I-VSS	-	Connect to GND
163	DA-DATA1	O	Data output to IC702	196	V-DACK	I	Host interrupt input for ATAPI
164	DA-DATA2	O	Data output to IC702	197	E-VDD	-	Power supply
165	DA-DATA3	O	Data output to IC702	198	SECT-SYNC	I	Host write for ATAPI
166	DA-LRCK	O	L/R clock output to IC702	199	E-VSS	-	Connect to GND
167	DA-BCK	O	Bit clock output to IC702	200	ERROR	-	Connect to GND
168	I-VDD	-	Power supply	201	HOST-SEL	-	Connect to GND
169	DA-XCK	-	Non connect	202	HADDR0	I	System control address input
170	I-VSS	-	Connect to GND	203	HADDR1	I	System control address input
171	DAI-DATA	-	Connect to TP501	204	HADDR2	I	System control address input
172	DAI-LRCK	I	L/R clock input from IC702	205	DTACK-SEL	-	Connect to GND
173	DAI-BCK	I	Bit clock input from IC702	206	$\overline{\text{CS}}$	I	Chip select for ZIVA
174	TEST-PIN9	-	Test pin	207	$\overline{\text{R/W}}$	I	Write enable
175	CLK-SEL	-	Connect to GND	208	$\overline{\text{RD}}$	I	Read enable

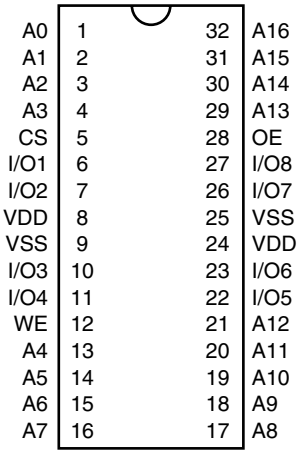
■ IC-PST9140-T (IC717) : RESET IC

1. biock diagram

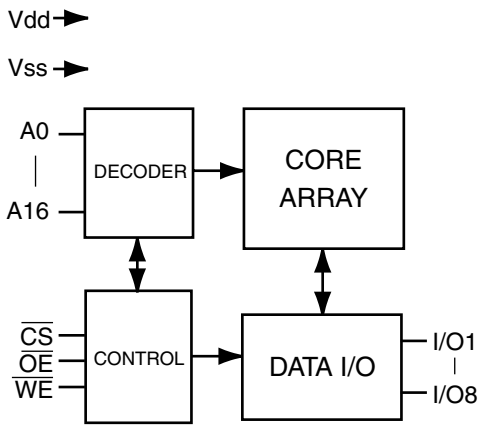


■ W24L011AJ-15(IC641): SDRAM

1. Terminal layout



2. Block diagram

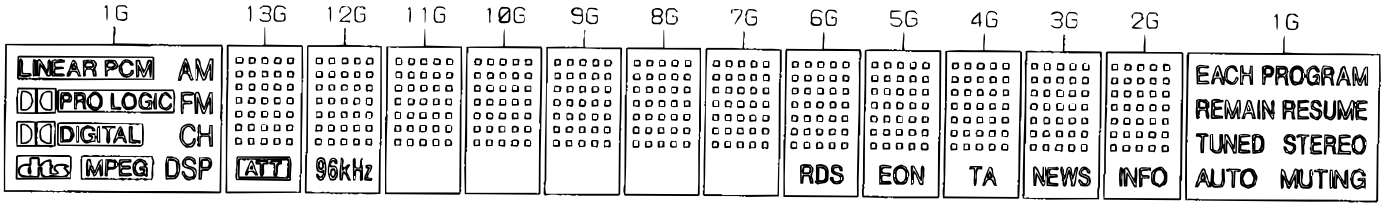


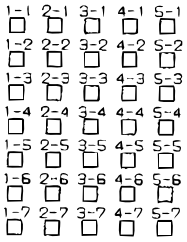
3. Pin function

Symbol	Description
A0-A16	Address input
I/O1-I/O8	Data input/output
CS	Chip select input
WE	Write enable input
OE	Output enable input
Vdd	Power supply terminal
Vss	Ground connection

Internal connection of FL display tube

■ QLF0049-001(DI831):FL DISPLAY TUBE





PIN CONNECTION

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
CONNECTION	F1	F2	NP	NC	NC	NC	NC	NC	NC	P36	P35	P34	P33	P32	P31	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	NC	13G	12G	11G	10G	9G

PIN NO.	51	52	53	54	55	56	57	58	59	60	61	62
CONNECTION	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	F2	F2

NOTE
1) F1,F2 --- Filament
2) NP ------ No pin
3) NC ------ No connection
4) DL ------ Datum Line
5) 1G~13G --- Grid

ANODE CONNECTION

	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	EACH
P2	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	PROGRAM
P3	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	REMAIN
P4	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	RESUME
P5	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	TUNED
P6	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	STEREO
P7	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	AUTO
P8	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	MUTING
P9	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	LINEAR PCM
P10	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	AM
P11	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	DOLBY PRO LOGIC
P12	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	FM
P13	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	DOLBY DIGITAL
P14	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	CH
P15	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	dts
P16	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	MPEG
P17	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	DSP
P18	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	-
P19	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	-
P20	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	-
P21	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	-
P22	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	-
P23	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	-
P24	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	-
P25	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	-
P26	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	-
P27	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	-
P28	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	-
P29	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	-
P30	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	-
P31	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	-
P32	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	-
P33	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	-
P34	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	-
P35	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	-
P36	ATT	96kHz	-	-	-	-	-	RDS	EON	TA	NEWS	INFO	-

PARTS LIST

[XV-THA10R]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

B ---------- U.K.
E ---------- Continental Europe
EN ---------- Northern Europe
EE ---------- Russian Federation

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DVD mechanism assembly and parts list ---------- 3-5
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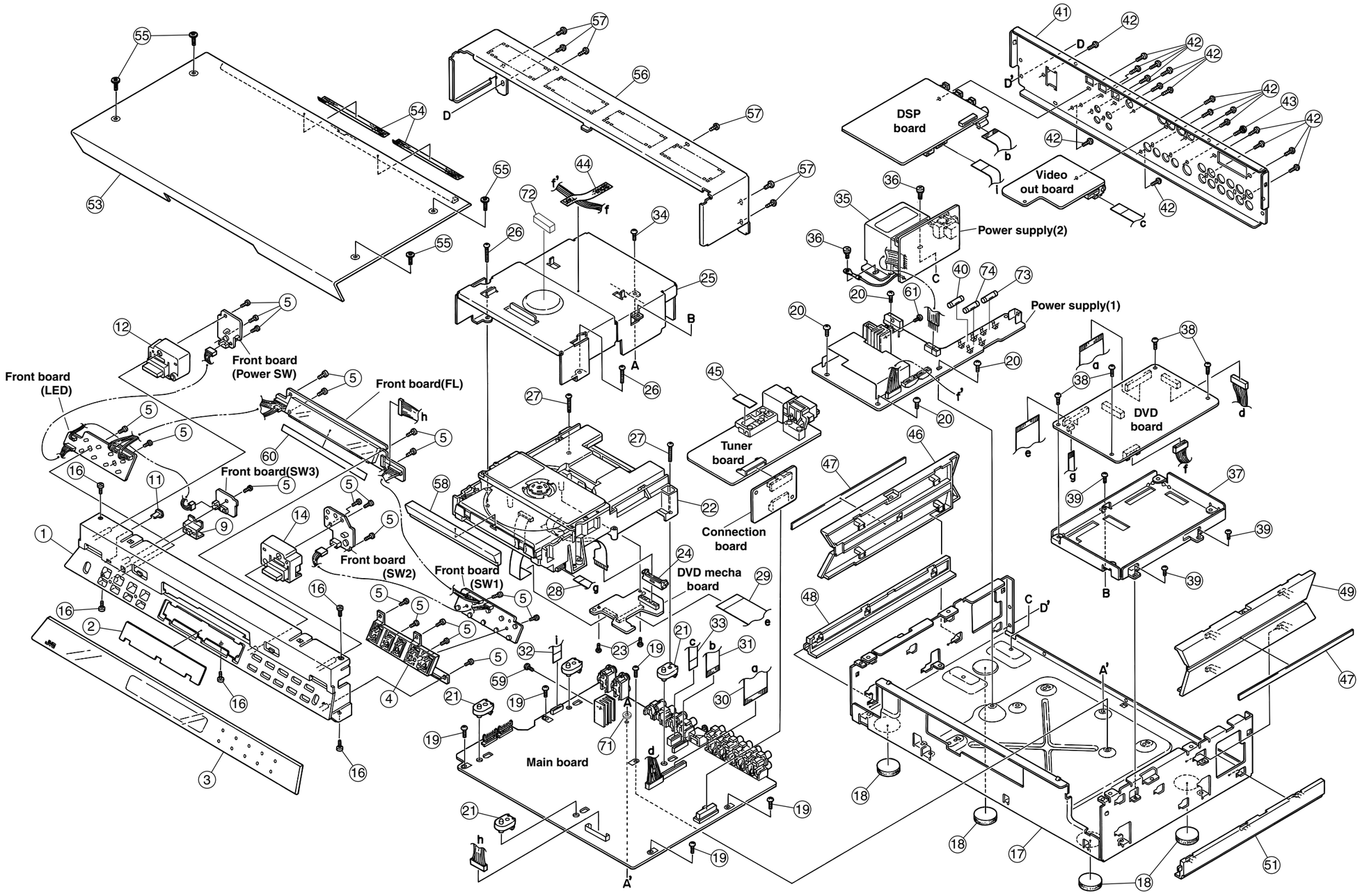
Packing materials and accessories parts list ---------- 3-24

— MEMO —

Exploded view of general assembly and parts list

Block No. M 1 M M



■ Parts list (General assembly)

Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10334-005A	FRONT BASE	1		
	2	LV41540-001A	FL SCREEN	1	FRONT BASE	
	3	LV20644-003A	LENS	1		
	4	LV20648-001A	PUSH BUTTON	1		
	5	QYSDSF2606Z	SCREW	20		
	9	LV41541-001A	REMOTE LENS	1		
	11	FSJD4001-002	INDICATOR	1		
	12	LV31711-001A	P.BUTTON ASSY	1		
	14	LV31714-001A	EJECT B.ASSY	1		
	16	QYSDSG3008M	SCREW	5	FRONT+CHASSIS	
	17	LV10336-001A	CHASSIS BASE	1		
	18	LV41539-001A	SPACER	4	FOOT	
	19	QYSBSG3008E	T.SCREW	5	MAIN PWB+CHASSI	
	20	QYSBSG3008E	T.SCREW	4	POW.PWB+CHASSIS	
	21	LV31717-001A	STAND	4		
	22	------	DVD DRIVE MECHA	1		
	23	QYSBSF2006Z	SCREW	2	FOR MECHA+PWB	
	24	LV31435-001A	CONECTOR HOLDER	1		
	25	LV20640-001A	SHIELD PLATE	1		
	26	QYSBST3018E	T.SCREW	2	MECHA+SHIELD+CA	
	27	QYSBST3016Z	T.SCREW	2	MECHA+CHASSIS	
	28	QUQ810-0715AJ	FFC WIRE	1	MECHA FP2602-CN	
	29	QUQ810-3717AM	FFC WIRE	1	MECHA CN11-DVD	
	30	QUQ810-3512AM	FFC WIRE	1	MAIN CN801-DVD	
	31	QUQ810-1916AJ	FFC WIRE	1	MAIN CN151-DSP	
	32	QUQ810-1318AJ	FFC WIRE	1	MAIN CN804-DSP	
	33	QUQB12-1012AJ	FFC WIRE	1	MAIN CN231-SV C	
	34	QYSBSG3008E	T.SCREW	1	MECHA+SHIELD+CA	
⚠	35	QQT0296-003	POWER TRANS	1	T901	
	36	QYSDSTL4008E	SPECIAL SCREW	2	TRANS+CHASSIS	
	37	LV31718-001A	SHIELD CASE	1		
	38	QYSBSG3006E	T.SCREW	4	DVD PWB+S.CASE	
	39	QYSBST3004Z	T.SCREW	3	S.CASE+CHASSIS	
⚠	40	QMF51E2-2R0-J1	FUSE	1	F901	
	41	LV20642-012A	REAR PANEL	1		B,E,EN
		LV20642-013A	REAR PANEL	1		EE
	42	QYSBSGY3008E	SPECIAL SCREW	18		
	43	E73562-003	SPECIAL SCREW	1	SUB WOOFER+REAR	
	44	LV30225-079A	SPACER	1	SHIELD PLATE	
	45	LV30225-081A	SPACER	1	TUNER PWB	
	46	LV20645-002A	SIDE PANEL(L)	1		
	47	LV41542-001A	SIDE PLATE	2		
	48	LV31719-002A	SIDE COVER(L)	1		
	49	LV20646-002A	SIDE PANEL(R)	1		
	51	LV31720-002A	SIDE COVER(R)	1		
	53	LV10335-001A	TOP PANEL	1		
	54	LV30225-062A	SPACER	2	TOP PANEL	
	55	LV41834-001A	SPECIAL SCREW	4	TOP PANEL+CHASS	

■ Parts list (General assembly)

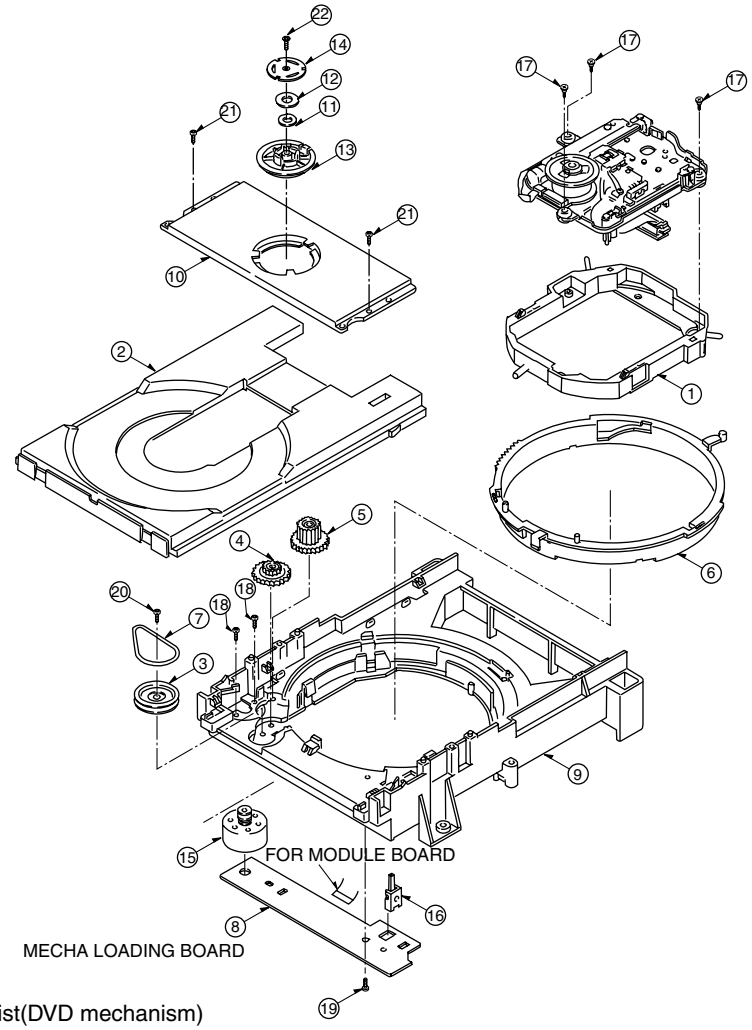
Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	56	LV20643-001A	REAR COVER	1		
	57	QYSBSGY3008E	SPECIAL SCREW	6	R.COVER+CHASSI	
	58	LV20647-001A	TRAY FITTING	1		
	59	QYSBSG3008Z	T.SCREW	1	IC156 + HS156	
	60	LV30225-070A	SPACER	1	FOR DI701+BK701	
	61	QYSBSG3008Z	T.SCREW	1	Q921+HS921	
	71	E73967-006	SPACER	1		
	72	LV41956-001A	SHIELD GASKET	1		
⚠	73	QMF51E2-R50-J1	FUSE	1	F902	
⚠	74	QMF51E2-R50-J1	FUSE	1	F903	

DVD mechanism assembly and parts list

Block No. M 2 M M

1/2
FLM-V3



■ Parts list(DVD mechanism)

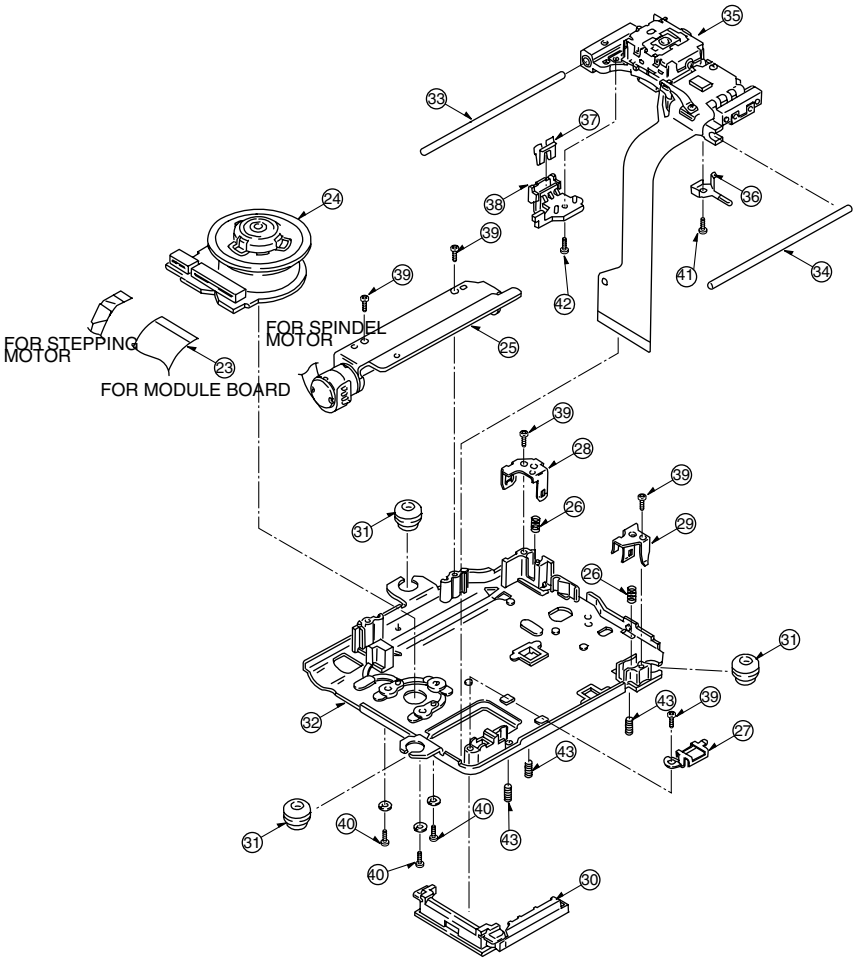
⚠	REF.	PARTS NO.	PARTS NAME	QTY	SUFFIX
	1	GMVMD3270	Chassis	1	
	2	GMVMD3265	Tray	1	
	3	GMVDG1308	Pulley gear	1	
	4	GMVDG1309	Drive gear 1	1	
	5	GMVDG1310	Drive gear 2	1	
	6	GMVDK0156	UP DOWN cam	1	
	7	GMVDV0373	Belt	1	
	8	----------	Mecha roading p.c.Board	1	
	9	GMVMD3266	Roading Base	1	
	10	GMVMD3263	Clampe base	1	
	11	GMJSM0048	Magnet	1	
	12	GMVMA9535	Clamp back yoke	1	
	13	GMVMD3264	Clamper	1	
	14	GMVMA0B93	Clamper weight	1	
	15	GMVEM0664	Roading motor unit	1	
	16	GMVSH0170	Twin switch	1	
	17	GMVHD1223	Screw 1	3	
	18	GMXQNQC17+3	Screw 2	2	
	19	GMXTV3+10G	Screw 3	1	
	20	GMXTW2+12T	Screw 4	1	
	21	GMXTV3+10G	Screw 5	2	
	22	GMXTS3+6J	Screw 6	1	

DVD mechanism assembly and parts list

Block No. M 2 M M

2/2

FML-V3



■ **Parts list(DVD mechanism)**

⚠	REF.	PARTS NO.	PARTS NAME	QTY	SUFFIX
	23	GMVWJ1277	Spindle FFC	1	
	24	GMVEM0665	Spindle motor unit	1	
	25	GMVEM0666	Stepping motor unit	1	
	26	GMVMB3278	Tilt spring 1	2	
	27	GMVMC1487	Tilt spring 2	1	
	28	GMVMC1488	Spring suppresses 1	1	
	29	GMVMC1489	Spring suppresses 2	1	
	30	GMVMD3261	FPC holder	1	
	31	GMVMG1166	Floating rubber	3	
	32	GMVMK0474	Travarse shasshis	1	
	33	GMVMS6471	Guide shaft 1	1	
	34	GMVMS6472	Guide shaft 2	1	
	35	GMVED0402	Optical pick up	1	
	36	GMVMC1491	Spring	1	
	37	GMVMC1490	Nut spring	1	
	38	GMVMD3260	Nut	1	
	39	GMVHD1224	Screw 1	5	
	40	GMVHD1225	Screw 2	3	
	41	GMVHD1057	Screw 3	1	
	42	GMXQNQC17+3	Screw 4	1	
	43	GMXXE26C6FN	Screw 5	3	

Electrical parts list

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 231	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 232	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 233	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 234	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 235	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 236	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 237	QDX31EM-473Z	C.CAPACITOR		
	C 241	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 242	QDYB1CM-103Y	C.CAPACITOR		
	C 243	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 244	QDYB1CM-103Y	C.CAPACITOR		
	C 245	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 253	QDX31EM-104Z	C.CAPACITOR		
	C 254	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C 255	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 256	QCS11HJ-121	C CAPACITOR	120PF 5% 50V	
	C 258	QDYB1CM-103Y	C.CAPACITOR		
	C 261	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 262	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 271	QCS11HJ-121	C CAPACITOR	120PF 5% 50V	
	C 272	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 273	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C 291	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 298	QDGB1HK-102Y	C CAPACITOR		
	C 299	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 801	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 802	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 806	QEZ0229-479Z	EDL.CAPACITOR	47000MF	
	C 807	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 811	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 812	QCBB1HK-473Y	C CAPACITOR	.047MF 10% 50V	
	C 813	QEKC1AM-107Z	E.CAPACITOR	100MF 20% 10V	
	C 814	QEZ0229-479Z	EDL.CAPACITOR	47000MF	
	C 816	QEKC0JM-227Z	E.CAPACITOR	220MF 20% 6.3V	
	C 817	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 821	QDYB1CM-103Y	C.CAPACITOR		
	C 822	QEKC1HM-225Z	E.CAPACITOR	2.2MF 20% 50V	
	C 823	QDGB1HK-102Y	C CAPACITOR		
	C 824	QDVB1EZ-223Y	C CAPACITOR		
	C 826	QETN1HM-224Z	E CAPACITOR	.22MF 20% 50V	
	C 827	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 831	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 832	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 835	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 836	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 871	QCZ0205-155Z	ML C CAPACITOR	1.5MF	
	C 905	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 906	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	CN131	QGB2501K2-10	B TO B CONNE		
	CN132	QGB2501K1-04	CONNECTOR		
	CN133	QGB2501J1-12	CONNECTOR		
	CN134	QGB2501J1-04	CONNECTOR		
	CN151	QGF1016C1-19	CONNECTOR		
	CN231	QGF1205C1-10	CONNECTOR		
	CN801	QGF1016C1-35	FFC/FPC CONNE	DVD-MAIN	
	CN802	QGA2001C1-15	15P PLUG ASSY	MAIN-FL	
	CN804	QGF1016C1-13	CONNECTOR	DSP-MAIN	
	CN805	QGB2501J1-10	B TO B CONNE		
	CN806	QGB2501J1-04	CONNECTOR		
	CN807	QGB2011MP-08	B TO B CONNE		
	CN808	QGB2011MP-08	B TO B CONNE		
	C1101	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1102	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C1103	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1104	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1105	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1106	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1107	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1108	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1109	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1110	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1111	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1112	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C1115	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1116	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1117	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C1118	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C1121	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1122	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1123	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1124	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1125	QFLC1HJ-821Z	M.CAPA.I.M	820PF 5% 50V	
	C1126	QFLC1HJ-821Z	M.CAPA.I.M	820PF 5% 50V	
	C1127	QFVJ1HJ-224Z	CAPACITOR	.22MF 5% 50V	
	C1128	QFVJ1HJ-224Z	CAPACITOR	.22MF 5% 50V	
	C1131	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1132	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1133	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1134	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1135	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1136	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1137	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1138	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1139	QFVJ1HJ-224Z	CAPACITOR	.22MF 5% 50V	
	C1140	QFVJ1HJ-224Z	CAPACITOR	.22MF 5% 50V	
	C1151	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1152	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1155	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1156	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1159	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1160	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1161	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C1162	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C1163	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1164	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C1165	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1166	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1167	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C1169	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1170	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1171	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C1173	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1174	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1175	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C1176	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1177	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1178	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1179	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1180	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1181	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C1182	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1183	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C1201	QTE1H06-475Z	E CAPACITOR		
	C1202	QTE1H06-475Z	E CAPACITOR		
	C1203	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1204	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	C1205	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1206	QTE1H06-475Z	E CAPACITOR		
	C1211	QTE1H06-475Z	E CAPACITOR		
	C1212	QTE1H06-475Z	E CAPACITOR		
	C1213	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1214	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1215	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C1216	QTE1H06-475Z	E CAPACITOR		
	C1301	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C1302	QFLC1HJ-562Z	M CAPACITOR	5600PF 5% 50V	
	C1351	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C1352	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	D 801	1SS133-T2	SI DIODE		
	D 802	MTZJ6.2C-T2	Z DIODE I/M		
	D 803	MTZJ6.2C-T2	Z DIODE I/M		
	D 807	1SS133-T2	SI DIODE		
	D 809	1SS133-T2	SI DIODE		
	D 811	1SS133-T2	SI DIODE		
	D 813	1SS133-T2	SI DIODE		
	D 814	1SS133-T2	SI DIODE		
	D 818	1SS133-T2	SI DIODE		
	D 820	1SS133-T2	SI DIODE		
	D1351	1SS133-T2	SI DIODE		
	D1352	MTZJ6.8A-T2	ZENER DIODE		
	EP801	QNZ0136-001Z	EARTH PLATE		
	EP802	QNZ0136-001Z	EARTH PLATE		
	EP803	QNZ0136-001Z	EARTH PLATE		
	EP805	QNZ0136-001Z	EARTH PLATE		
	FW901	QUM157-08DGZ4	PARA RIBON WIRE	TO CN911/912	
	HS156	E70945-H40B	HEAT SINK	FOR IC156	
	IC151	TC9164AN	IC	INPUT SOURCE	
	IC152	TC9162AN	IC	REC SOURCE	
	IC153	TC9459F	IC		
	IC154	TC9459F	IC		
	IC155	TC9459F	IC		
	IC156	NJM78M05FA	IC	5V REG	
	IC157	NJM4580L	IC		
	IC158	NJM4580L	IC		
	IC159	NJM4580L	IC		
	IC160	NJM4580L	IC		
	IC231	BA7625	IC		
	IC233	M5278L09-T	IC I/M		
	IC801	MN101C12GHE	IC	DVD SYSTEM MICO	
	IC802	MN101C15FHF	MPU	RECIEVER MICOM	
	IC803	IC-PST9140-T	IC		
	IC804	BR93LC46-W	IC		
	J 231	QNN0063-001	PIN JACK		
	J 232	QNN0063-001	PIN JACK		
	J 801	QNS0016-001	3.5 JACK	COMPULINK	
	J 802	QNS0016-001	3.5 JACK	AV COMPULINK	
⚠	J 901	QNC0006-001	AC SOCKET		
	J1101	QNN0325-001	PIN JACK		
	J1102	QNN0325-001	PIN JACK		
	J1103	QND0079-001	DIN CONNECTOR		
	K 801	QQR0779-001Z	INDUCTOR		
	K 802	QQR0779-001Z	INDUCTOR		
	K 803	QQR0779-001Z	INDUCTOR		
	L 251	QQL071J-5R6Y	INDUCTOR		
	L 252	QQL071J-120Y	INDUCTOR		
	L 271	QQL071J-120Y	INDUCTOR		
	L 272	QQL071J-5R6Y	INDUCTOR		
	L 901	QQR1145-001	INDUCTOR		
	L1301	QQR0590-001	FILTER		

⚠	Item	Parts number	Parts name	Remarks	Area
	L1302	QQR0590-001	FILTER		
	Q 231	KTA1267/YG/-T	TRANSISTOR		
	Q 232	KTA1267/YG/-T	TRANSISTOR		
	Q 233	KTA1267/YG/-T	TRANSISTOR		
	Q 234	KTA1267/YG/-T	TRANSISTOR		
	Q 236	KTA1267/YG/-T	TRANSISTOR		
	Q 801	KRC102M-T	D.TRANSISTOR		
	Q 802	KRC102M-T	D.TRANSISTOR		
	Q 803	KRC102M-T	D.TRANSISTOR		
	Q 804	KRC102M-T	D.TRANSISTOR		
	Q 805	KTA1267/YG/-T	TRANSISTOR		
	Q 806	KTA1267/YG/-T	TRANSISTOR		
	Q 807	KRA102M-T	D.TRANSISTOR		
	Q 811	KRC102M-T	D.TRANSISTOR		
	Q 812	KTA1271/OY/-T	TRANSISTOR		
	Q 813	DTC144ESA-T	D.TRANSISTOR		
	Q 814	KTA1271/OY/-T	TRANSISTOR		
	Q 815	KTC3199/GL/-T	TRANSISTOR		
	Q 816	KRA102M-T	D.TRANSISTOR		
	Q1131	2SC2878/AB/-T	TRANSISTOR		
	Q1132	2SC2878/AB/-T	TRANSISTOR		
	Q1133	2SC2878/AB/-T	TRANSISTOR		
	Q1134	2SC2878/AB/-T	TRANSISTOR		
	Q1135	2SC2878/AB/-T	TRANSISTOR		
	Q1136	2SC2878/AB/-T	TRANSISTOR		
	Q1137	2SC2878/AB/-T	TRANSISTOR		
	Q1351	KTC3203/OY/-T	TRANSISTOR		
	R 231	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 232	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 233	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 234	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 235	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 236	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 237	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 238	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 239	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 241	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
	R 242	QRE141J-151Y	C RESISTOR	150 5% 1/4W	
⚠	R 243	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R 246	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 247	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 248	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 249	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 250	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 251	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 252	QRE141J-680Y	C RESISTOR	68 5% 1/4W	
	R 253	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 254	QRE141J-680Y	C RESISTOR	68 5% 1/4W	
	R 255	QRE141J-391Y	C RESISTOR	390 5% 1/4W	
	R 261	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 262	QRE141J-750Y	C RESISTOR	75 5% 1/4W	
	R 271	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R 272	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	R 273	QRE141J-751Y	C RESISTOR	750 5% 1/4W	
	R 274	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R 275	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 276	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 801	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 802	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 803	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 805	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 806	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 811	QRE141J-101Y	C RESISTOR	100 5% 1/4W	

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 812	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 813	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 817	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 818	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
⚠	R 821	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R 822	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 823	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 824	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 825	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 829	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 831	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 832	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 833	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 834	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 835	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 836	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 841	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 843	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 844	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 845	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 846	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 847	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 848	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 849	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 850	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 851	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 852	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 853	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 854	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 855	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 856	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 857	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 858	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 859	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 860	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 861	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 862	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 863	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 864	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 865	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 866	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 867	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 868	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 869	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 871	QRE141J-681Y	C RESISTOR	680 5% 1/4W	
	R 872	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 873	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 874	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 877	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 881	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 882	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 883	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 888	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 889	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 890	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 891	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 892	QRE141J-105Y	C RESISTOR	1.0M 5% 1/4W	
	R 893	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 894	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R1101	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1102	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1103	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1104	QRE141J-471Y	C RESISTOR	470 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R1105	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1106	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1107	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1108	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1109	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1110	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1111	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1112	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1115	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1116	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1117	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1118	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1125	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R1126	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R1127	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R1128	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R1129	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R1130	QRE141J-272Y	C RESISTOR	2.7K 5% 1/4W	
	R1131	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1132	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1133	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1134	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1135	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1136	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1137	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1138	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1139	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1140	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1141	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1142	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1143	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1144	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1145	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1146	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1147	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1148	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1149	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1150	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R1151	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1152	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1153	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R1154	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1155	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1156	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1157	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1158	QRE141J-273Y	C RESISTOR	27K 5% 1/4W	
	R1161	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1162	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1163	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1164	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1165	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1166	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R1167	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1168	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1169	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1170	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1171	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1172	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1173	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1174	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R1175	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R1176	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
⚠	R1181	QRZ9005-470X	F.RES I/M	47 1/4W	

■ **Electrical parts list (Main board)** **Block No. 01**

⚠	Item	Parts number	Parts name	Remarks	Area
⚠	R1182	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1183	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1184	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1185	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1186	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1187	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1188	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1189	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1190	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1191	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1192	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1193	QRZ9005-470X	F.RES I/M	47 1/4W	
⚠	R1194	QRZ9005-470X	F.RES I/M	47 1/4W	
	R1196	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1197	QRE141J-474Y	C RESISTOR	470K 5% 1/4W	
	R1301	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R1302	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
⚠	R1351	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R1352	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	SP153	VYH7653-002	IC HOLDER	FOR IC1153	
	SP154	VYH7653-002	IC HOLDER	FOR IC1154	
	SP155	VYH7653-002	IC HOLDER	FOR IC1154	
	SP801	VYH7237-005	IC HOLDER	FOR IC801	
	SP802	VYH7237-003SC	IC HOLDER	FOR IC802	
	WA231	WJP0017-001A	E-SH C WIRE C-B	JSC:WJP0017-001	
	X 801	QAX0356-001Z	RESONATOR		
	X 802	QAX0246-001Z	RESONATOR		

■ **Electrical parts list (Front & Power board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 201	NCS21HJ-470X	C CAPACITOR		
	C 202	NCS21HJ-470X	C CAPACITOR		
	C 203	NCS21HJ-470X	C CAPACITOR		
	C 204	NCS21HJ-470X	C CAPACITOR		
	C 205	NCB21EK-473X	C CAPACITOR		
	C 206	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 207	NCB21EK-473X	C CAPACITOR		
	C 208	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 209	NCB21EK-473X	C CAPACITOR		
	C 210	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 211	NCB21EK-473X	C CAPACITOR		
	C 212	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 213	NCB21HK-103X	C CAPACITOR		
	C 214	NCB21EK-473X	C CAPACITOR		
	C 215	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 216	QER41AM-107	E CAPACITOR	100MF 20% 10V	
	C 217	NCB21HK-103X	C CAPACITOR		
	C 218	QERF1EM-475Z	E CAPACITOR	4.7MF 20% 25V	
	C 226	NCB21EK-473X	C CAPACITOR		
	C 228	NCB21EK-473X	C CAPACITOR		
	C 701	NCB21HK-103X	C CAPACITOR		
	C 702	NCB21HK-471X	C CAPACITOR		
	C 703	NCB21HK-471X	C CAPACITOR		
	C 704	NCB21HK-471X	C CAPACITOR		
	C 705	NCB21HK-471X	C CAPACITOR		
	C 706	QERF0JM-107Z	E CAPACITOR	100MF 20% 6.3V	
	C 707	NCB21HK-102X	C CAPACITOR		
	C 708	NCB21HK-103X	C CAPACITOR		
	C 709	QERF1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 710	QERF1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 711	QERF0JM-226Z	E CAPACITOR	22MF 20% 6.3V	
	C 731	NCB21HK-103X	C CAPACITOR		
	C 732	NCB21HK-103X	C CAPACITOR		
	C 733	QERF0JM-226Z	E CAPACITOR	22MF 20% 6.3V	
	C 911	QETN1VM-227Z	E CAPACITOR I/M	220MF 20% 35V	
	C 912	QETN1HM-227Z	E CAPACITOR	220MF 20% 50V	
	C 913	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 914	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 915	QETN1AM-107Z	E CAPACITOR	100MF 20% 10V	
	C 921	QETM1EM-228	E CAPACITOR	2200MF 20% 25V	
	C 922	QETN1EM-108Z	E CAPACITOR	1000MF 20% 25V	
	C 923	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 924	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 925	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 926	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 927	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 928	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 936	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 941	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 942	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	C 943	QETM1EM-478	E CAPACITOR	4700MF 20% 25V	
	C 944	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 945	NCB11CK-105X	C CAPACITOR		
	C 946	NCB11CK-105X	C CAPACITOR		
	C 947	NCB21HK-221X	C CAPACITOR		
	C 948	NCB21HK-221X	C CAPACITOR		
	C 961	NCB21HK-221X	C CAPACITOR		
	C 962	NCB21HK-221X	C CAPACITOR		
	C 963	NCB21HK-153X	C CAPACITOR		
	C 964	NCS21HJ-152X	C CAPACITOR		
	C 965	QEKC1EM-476Z	E.CAPACITOR	47MF 20% 25V	
	C 971	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	
	C 972	QETN0JM-477Z	E CAPACITOR	470MF 20% 6.3V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C 974	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C 975	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C 977	NCB21HK-102X	C CAPACITOR		
	C 978	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C 979	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C 980	QETN0JM-108Z	E CAPACITOR	1000MF 20% 6.3V	
	C 981	NCB21HK-102X	C CAPACITOR		
	C 982	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V	
	C 983	QETN1AM-477Z	E CAPACITOR	470MF 20% 10V	
	C 984	NCB21HK-102X	C CAPACITOR		
	C 986	NCB21HK-331X	C.CAPACITOR		
	C 987	NCB21HK-331X	C.CAPACITOR		
	C 988	NCB21HK-331X	C.CAPACITOR		
	C 989	NCB21HK-331X	C.CAPACITOR		
	C 999	QCF11HZ-103	C CAPACITOR	.010MF +80:-20%	
	CN201	QGF1205F1-10	CONNECTOR		
	CN701	QGA1002F1-15X	CONNECTOR	1MM PITCH	
	CN702	QGA2001C1-04	4P PLUG ASSY		
	CN705	QGA2001C1-05	5P PLUG ASSY		
	CN706	QGA2001C1-03	3P PLUG ASSY		
⚠	CN911	QGD2501C1-03Z	SOCKET		
⚠	CN912	QGD2501C1-04Z	SOCKET		
	CN913	QGB2011L1-08	B TO B CONNECTO		
	CN914	QGB2011L1-08	B TO B CONNECTO		
	D 701	1SS355-X	DIODE		
	D 702	1SS355-X	DIODE		
	D 703	1SS355-X	DIODE		
	D 706	1SS355-X	DIODE	BAND 0	
	D 713	1SS355-X	DIODE		
	D 715	1SS355-X	DIODE		
	D 721	SLR-342VC-T	LED	LFE	
	D 722	SLR-342VC-T	LED	L	
	D 723	SLR-342VC-T	LED	C	
	D 724	SLR-342VC-T	LED	R	
	D 725	SLR-342VC-T	LED	LS	
	D 726	SLR-342VC-T	LED	S	
	D 727	SLR-342VC-T	LED	RS	
	D 731	SELU1E56BM	LED	EJECT LED(BLUE)	
	D 732	SELU1E56BM	LED	POWER LED(BLUE)	
	D 733	SLR-342VC-T	LED	STANDBY LED	
	D 734	1SS355-X	DIODE		
⚠	D 911	1SR35-400A-T5	DIODE I/M		
⚠	D 912	1SR35-400A-T5	DIODE I/M		
⚠	D 913	1SR35-400A-T5	DIODE I/M		
	D 915	1SS355-X	DIODE		
	D 916	MA3360/L/-X	Z.DIODE C.M		
	D 918	1SS355-X	DIODE		
	D 919	1SS355-X	DIODE		
⚠	D 921	1SR35-400A-T5	DIODE I/M		
⚠	D 922	1SR35-400A-T5	DIODE I/M		
⚠	D 923	1SR35-400A-T5	DIODE I/M		
⚠	D 924	1SR35-400A-T5	DIODE I/M		
	D 925	MA3100/M/-X	ZENER DIODE		
	D 926	MA3030/L/-X	Z.DIODE I.M		
	D 927	1SS355-X	DIODE		
⚠	D 928	1SS388-X	SB DIODE		
	D 936	1SS355-X	DIODE		
	D 937	1SS355-X	DIODE		
	D 939	MA3051/M/-X	ZENER DIODE		
⚠	D 941	D3SBA20-S3	DIODE		
	D 942	CRS01-W	SB DIODE		
	D 943	SFPJ-73-W	SB.DIODE C.M		
	D 944	SFPJ-73-W	SB.DIODE C.M		

■ **Electrical parts list (Front & Power board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	D 945	CRS01-W	SB DIODE		
	D 947	1SS355-X	DIODE		
	D 948	1SS355-X	DIODE		
	D 949	1SS355-X	DIODE		
	D 950	1SS355-X	DIODE		
	D 951	1SS355-X	DIODE		
	D 952	1SS355-X	DIODE		
	D 953	1SS355-X	DIODE		
	D 954	1SS355-X	DIODE		
	D 962	1SS355-X	DIODE		
	DI701	QLF0073-002	FL TUBE		
	EP901	E409182-001SM	GRAND TERMINAL		
	HS921	E70945-H40B	HEAT SINK	FOR Q921	
	HS923	LE40505-001A	HEAT SINK	FOR Q923	
	IC201	BA7625	IC		
	IC202	BA7625	IC		
	IC701	MN173222DM	IC	DISPLAY MICOM	
	IC711	GP1U261X	IR DETECT UNIT		
⚠	IC941	MB3785APFV	IC		
	J 201	QND0002-001	S-CONNECTOR		
	J 202	QND0002-002	S-CONNECTOR		
	K 941	QQR0601-001Z	FERRITE BEADS		
	K 942	QQR0601-001Z	FERRITE BEADS		
	K 943	QQR0601-001Z	FERRITE BEADS		
	K 944	QQR0601-001Z	FERRITE BEADS		
	K 945	QQR0601-001Z	FERRITE BEADS		
	K 946	QQR0601-001Z	FERRITE BEADS		
	K 947	QQR0601-001Z	FERRITE BEADS		
	K 948	QQR0601-001Z	FERRITE BEADS		
	K 949	QQR0601-001Z	FERRITE BEADS		
	K 950	QQR0601-001Z	FERRITE BEADS		
	K 951	QQR0601-001Z	FERRITE BEADS		
	K 953	QQR0601-001Z	FERRITE BEADS		
	L 941	QQL31AK-470Z	INDUCTOR		
	L 945	QQL44BK-681Z	INDUCTOR		
	L 946	QQL49AK-470Z	INDUCTOR		
	L 947	QQL58AK-680	INDUCTOR		
	L 948	QQL49AK-470Z	INDUCTOR		
	L 950	QQL44BK-121Z	INDUCTOR I/M		
	L 951	QQL49AK-470Z	INDUCTOR		
	L 952	QQL49AK-470Z	INDUCTOR		
	L 953	QQL44BK-181Z	INDUCTOR I/M		
	L 954	QQL49AK-470Z	INDUCTOR		
	Q 201	2SA1037AK/RS/-X	TRANSISTOR		
	Q 202	2SA1037AK/RS/-X	TRANSISTOR		
	Q 203	2SA1037AK/RS/-X	TRANSISTOR		
	Q 204	2SA1037AK/RS/-X	TRANSISTOR		
	Q 703	DTC124EKA-X	TRANSISTOR		
	Q 704	DTC124EKA-X	TRANSISTOR		
	Q 705	DTC114TKA-X	TRANSISTOR		
	Q 706	DTA114EKA-X	DIGITAL.TRANSIS		
	Q 707	DTA114EKA-X	DIGITAL.TRANSIS		
	Q 708	DTA114EKA-X	DIGITAL.TRANSIS		
	Q 709	DTA114EKA-X	DIGITAL.TRANSIS		
	Q 711	DTC114EKA-X	TRANSISTOR		
	Q 712	DTC114EKA-X	TRANSISTOR		
	Q 713	DTC114EKA-X	TRANSISTOR		
	Q 714	DTC114EKA-X	TRANSISTOR		
	Q 715	DTC114EKA-X	TRANSISTOR		
	Q 716	DTC114EKA-X	TRANSISTOR		
	Q 717	DTC114EKA-X	TRANSISTOR		
	Q 718	DTC114EKA-X	TRANSISTOR		
	Q 911	KRC102M-T	D.TRANSISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	Q 912	2SB647/CD/-T	TRANSISTOR		
	Q 913	2SD2144S/VW/-T	TRANSISTOR		
	Q 914	2SD2144S/VW/-T	TRANSISTOR		
	Q 915	DTA114EKA-X	DIGITAL.TRANSIS		
	Q 921	2SB1566/EF/	TRANSISTOR		
	Q 922	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 923	2SB1566/EF/	TRANSISTOR		
	Q 924	2SA1037AK/RS/-X	TRANSISTOR		
	Q 932	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 942	2SA1037AK/RS/-X	TRANSISTOR		
	Q 943	2SB1197K/QR/-X	TRANSISTOR		
	Q 944	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 945	2SA1037AK/RS/-X	TRANSISTOR		
	Q 946	2SB1188/QR/-W	CHIP TRANSISTOR		
	Q 947	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 948	2SA1037AK/RS/-X	TRANSISTOR		
	Q 949	2SB1188/QR/-W	CHIP TRANSISTOR		
	Q 950	2SC2412K/RS/-X	CHIP TRANSISTOR		
	Q 951	2SA1037AK/RS/-X	TRANSISTOR		
	Q 952	2SB1188/QR/-W	CHIP TRANSISTOR		
	Q 954	SI2305DS-X	TRANSISTOR		
	Q 955	DTC124EKA-X	TRANSISTOR		
	Q 956	DTC124EKA-X	TRANSISTOR		
	R 21	NRSA02J-271X	MG RESISTOR		
	R 22	NRSA02J-271X	MG RESISTOR		
	R 23	NRSA02J-221X	MG RESISTOR		
	R 24	NRSA02J-221X	MG RESISTOR		
	R 25	NRSA02J-750X	MG RESISTOR		
	R 26	NRSA02J-750X	MG RESISTOR		
	R 201	NRSA02J-750X	MG RESISTOR		
	R 202	NRSA02J-750X	MG RESISTOR		
	R 203	NRSA02J-750X	MG RESISTOR		
	R 204	NRSA02J-750X	MG RESISTOR		
	R 206	NRSA02J-473X	MG RESISTOR		
	R 207	NRSA02J-750X	MG RESISTOR		
	R 208	NRSA02J-750X	MG RESISTOR		
	R 210	NRSA02J-473X	MG RESISTOR		
	R 211	NRSA02J-750X	MG RESISTOR		
	R 212	NRSA02J-750X	MG RESISTOR		
	R 216	NRSA02J-331X	MG RESISTOR		
	R 217	NRSA02J-331X	MG RESISTOR		
	R 218	NRSA02J-271X	MG RESISTOR		
	R 219	NRSA02J-271X	MG RESISTOR		
	R 220	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R 701	NRSA02J-102X	MG RESISTOR		
	R 702	NRSA02J-102X	MG RESISTOR		
	R 703	NRSA02J-102X	MG RESISTOR		
	R 704	NRSA02J-102X	MG RESISTOR		
	R 705	NRSA02J-102X	MG RESISTOR		
	R 707	NRSA02J-103X	MG RESISTOR		
	R 708	NRSA02J-103X	MG RESISTOR		
	R 709	NRSA02J-103X	MG RESISTOR		
	R 710	NRSA02J-103X	MG RESISTOR		
	R 711	NRSA02J-223X	MG RESISTOR		
	R 712	NRSA02J-102X	MG RESISTOR		
	R 713	NRSA02J-104X	MG RESISTOR		
	R 714	NRSA02J-104X	MG RESISTOR		
	R 715	NRSA02J-104X	MG RESISTOR		
	R 716	NRSA02J-104X	MG RESISTOR		
	R 724	NRSA02J-221X	MG RESISTOR		
	R 725	NRSA02J-103X	MG RESISTOR		
	R 726	NRSA02J-223X	MG RESISTOR		
	R 727	NRSA02J-223X	MG RESISTOR		

■ **Electrical parts list (Front & Power board)** **Block No. 02**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 728	NRSA02J-221X	MG RESISTOR		
	R 729	NRSA02J-471X	MG RESISTOR		
	R 731	NRSA02J-301X	MG RESISTOR		
	R 732	NRSA02J-472X	MG RESISTOR		
	R 741	NRSA02J-221X	MG RESISTOR		
	R 742	NRSA02J-221X	MG RESISTOR		
	R 743	NRSA02J-221X	MG RESISTOR		
	R 744	NRSA02J-221X	MG RESISTOR		
	R 745	NRSA02J-221X	MG RESISTOR		
	R 746	NRSA02J-221X	MG RESISTOR		
	R 747	NRSA02J-221X	MG RESISTOR		
	R 751	NRSA02J-221X	MG RESISTOR		
	R 752	NRSA02J-472X	MG RESISTOR		
	R 753	NRSA02J-301X	MG RESISTOR		
	R 756	NRSA02J-103X	MG RESISTOR		
⚠	R 911	QRZ9005-680X	F.RESISTOR	68 1/4W	
	R 912	NRSA02J-222X	MG RESISTOR		
	R 913	NRSA02J-333X	MG RESISTOR		
	R 914	NRSA02J-102X	MG RESISTOR		
	R 915	NRSA02J-102X	MG RESISTOR		
	R 916	NRSA02J-103X	MG RESISTOR		
	R 917	NRSA02J-103X	MG RESISTOR		
	R 918	NRSA02J-103X	MG RESISTOR		
	R 919	NRSA02J-333X	MG RESISTOR		
⚠	R 921	QRT012J-2R2	UNF.MF.RES.	2.2 5% 1/1W	
⚠	R 922	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R 923	NRSA02J-331X	MG RESISTOR		
	R 924	NRSA02J-221X	MG RESISTOR		
	R 925	NRSA02J-222X	MG RESISTOR		
	R 926	NRSA02J-562X	MG RESISTOR		
	R 927	NRSA02J-562X	MG RESISTOR		
	R 928	NRSA02J-471X	MG RESISTOR		
	R 929	NRSA02J-561X	MG RESISTOR		
	R 935	NRSA02J-472X	MG RESISTOR		
	R 936	NRSA02J-472X	MG RESISTOR		
	R 937	NRSA02J-472X	MG RESISTOR		
	R 938	NRSA02J-102X	MG RESISTOR		
	R 941	NRSA02J-822X	MG RESISTOR		
	R 942	NRSA02J-272X	MG RESISTOR		
	R 943	NRSA02J-472X	MG RESISTOR		
	R 944	NRSA02J-472X	MG RESISTOR		
	R 945	NRSA02J-154X	MG RESISTOR		
	R 946	NRSA02J-333X	MG RESISTOR		
	R 947	NRSA02J-273X	MG RESISTOR		
	R 948	NRSA02J-472X	MG RESISTOR		
	R 949	NRSA02J-472X	MG RESISTOR		
	R 950	NRSA02J-154X	MG RESISTOR		
	R 951	NRSA02J-333X	MG RESISTOR		
	R 952	NRSA02J-273X	MG RESISTOR		
	R 953	NRSA02J-272X	MG RESISTOR		
	R 954	NRSA02J-103X	MG RESISTOR		
	R 955	NRSA02J-102X	MG RESISTOR		
	R 956	NRSA02J-102X	MG RESISTOR		
	R 957	NRSA02J-102X	MG RESISTOR		
	R 958	NRSA02J-102X	MG RESISTOR		
	R 961	NRSA02J-103X	MG RESISTOR		
	R 962	NRSA02J-154X	MG RESISTOR		
	R 963	NRSA02J-122X	MG RESISTOR		
	R 964	NRSA02J-752X	MG RESISTOR		
	R 965	NRSA02J-472X	MG RESISTOR		
	R 966	NRSA02J-472X	MG RESISTOR		
	R 967	NRSA02J-103X	MG RESISTOR		
	R 968	NRSA02J-154X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R 969	NRSA02J-272X	MG RESISTOR		
	R 970	NRSA02J-472X	MG RESISTOR		
	R 971	NRSA02J-472X	MG RESISTOR		
	R 972	NRSA02J-472X	MG RESISTOR		
	R 973	NRSA02J-103X	MG RESISTOR		
	R 974	NRSA02J-682X	MG RESISTOR		
	R 975	NRSA02J-224X	MG RESISTOR		
	R 980	NRSA02J-103X	MG RESISTOR		
	R 982	NRSA02J-681X	MG RESISTOR		
	R 983	NRSA02J-470X	MG RESISTOR		
	R 984	NRSA02J-472X	MG RESISTOR		
	R 985	NRSA02J-102X	MG RESISTOR		
	R 986	NRSA02J-681X	MG RESISTOR		
	R 987	NRSA02J-120X	MG RESISTOR		
	R 988	NRSA02J-472X	MG RESISTOR		
	R 989	NRSA02J-222X	MG RESISTOR		
	R 990	NRSA02J-681X	MG RESISTOR		
	R 991	NRSA02J-180X	MG RESISTOR		
	R 992	NRSA02J-472X	MG RESISTOR		
	R 993	NRSA02J-222X	MG RESISTOR		
	R 994	NRSA02J-681X	MG RESISTOR		
	R 995	NRSA02J-150X	MG RESISTOR		
	R 996	NRSA02J-472X	MG RESISTOR		
	R 998	NRSA02J-103X	MG RESISTOR		
	R9001	NRSA02J-331X	MG RESISTOR		
	R9007	NRSA02J-121X	MG RESISTOR		
	R9010	NRSA02J-101X	MG RESISTOR		
	R9013	NRSA02J-151X	MG RESISTOR		
	S 701	QSW0683-001Z	PUSH SW I.M		
	S 702	QSW0683-001Z	PUSH SW I.M		
	S 703	QSW0683-001Z	PUSH SW I.M		
	S 704	QSW0683-001Z	PUSH SW I.M		
	S 705	QSW0683-001Z	PUSH SW I.M		
	S 706	QSW0683-001Z	PUSH SW I.M		
	S 707	QSW0683-001Z	PUSH SW I.M		
	S 708	QSW0683-001Z	PUSH SW I.M		
	S 709	QSW0683-001Z	PUSH SW I.M		
	S 710	QSW0683-001Z	PUSH SW I.M		
	S 711	QSW0683-001Z	PUSH SW I.M	EJECT	
	S 712	QSW0683-001Z	PUSH SW I.M	POWER	
	SH901	LV32044-001A	SHIELD CASE		
	WA701	QJC002-090804	E-S ID WIRE	JSC:QJC002-0908	
	WA702	QJK021-040804	C-B WIRE	JSC:QJK021-0408	
	WA703	QJC002-050800	E-S ID WIRE	JSC:QJC002-0508	
	WA704	QJC002-090804	E-S ID WIRE	JSC:QJC002-0908	
	WA705	QJK021-050800	SIN CR C-B WIRE	JSC:QJK021-0508	
	WA706	QJB001-030803	E-S ID WIRE	JSC:QJB001-0308	
	WA914	WJK0099-001A	E-SI C WIER C-B	JSC:WJK0099-001	
	X 701	NAX0192-001X	C.OSCILLATOR	6MHZ	
	Z 901	QNG0020-001Z	FUSE CLIP	FOR F901	
	Z 902	QNG0020-001Z	FUSE CLIP	FOR F901	
	Z 903	QNG0020-001Z	FUSE CLIP	FOR F902	
	Z 904	QNG0020-001Z	FUSE CLIP	FOR F902	
	Z 905	QNG0020-001Z	FUSE CLIP	FOR F903	
	Z 906	QNG0020-001Z	FUSE CLIP	FOR F903	

■ **Electrical parts list (DSP board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 601	NCB31HK-102X	C CAPACITOR		
	C 602	NCB31HK-102X	C CAPACITOR		
	C 603	NEA70JM-476X	E.CAPACITOR		
	C 604	NEA70JM-476X	E.CAPACITOR		
	C 605	NCB31CK-104X	C CAPACITOR		
	C 606	NCB31CK-104X	C CAPACITOR		
	C 607	NEA71CM-476X	E CAPACITOR		
	C 608	NCF31CZ-104X	C CAPACITOR		
	C 609	NCB31CK-104X	C CAPACITOR		
	C 610	NEA70JM-476X	E.CAPACITOR		
	C 611	NEA70JM-476X	E.CAPACITOR		
	C 612	NCB31CK-103X	C CAPACITOR		
	C 621	NEA71HM-105X	E.CAPACITOR		
	C 622	NCB31HK-101X	C CAPACITOR		
	C 623	NCB30JK-105X	C CAPACITOR		
	C 624	NCB31CK-104X	C CAPACITOR		
	C 625	NCB31CK-104X	C CAPACITOR		
	C 628	NCB31CK-103X	C CAPACITOR		
	C 631	NEA70JM-107X	E.CAPACITOR		
	C 632	NCB31CK-103X	C CAPACITOR		
	C 633	NCB31CK-104X	C CAPACITOR		
	C 634	NCB31CK-104X	C CAPACITOR		
	C 635	NCB31CK-104X	C CAPACITOR		
	C 636	NCB31CK-104X	C CAPACITOR		
	C 637	NCB31CK-104X	C CAPACITOR		
	C 638	NEA70JM-476X	E.CAPACITOR		
	C 639	NCB31CK-103X	C CAPACITOR		
	C 641	NEA70JM-107X	E.CAPACITOR		
	C 642	NCB31CK-103X	C CAPACITOR		
	C 643	NCB31AK-474X	C CAPACITOR		
	C 644	NCB31CK-103X	C CAPACITOR		
	C 645	NCS31HJ-101X	C.CAPACITOR		
	C 646	NCB31CK-103X	C CAPACITOR		
	C 647	NCS31HJ-220X	C CAPACITOR		
	C 648	NCS31HJ-180X	C CAPACITOR		
	C 649	NCS31HJ-121X	C CAPACITOR		
	C 653	NCB31CK-104X	C CAPACITOR		
	C 654	NEA70JM-107X	E.CAPACITOR		
	C 671	NCB31CK-103X	C CAPACITOR		
	C 672	NEA70JM-107X	E.CAPACITOR		
	C 673	NCB31CK-103X	C CAPACITOR		
	C 675	NRSA63J-103X	MG RESISTOR		
	C 677	NCB30JK-105X	C CAPACITOR		
	C 679	NCB31HK-101X	C CAPACITOR		
	C 680	NCB30JK-105X	C CAPACITOR		
	C 681	NCB31CK-103X	C CAPACITOR		
	C 682	NCB31CK-103X	C CAPACITOR		
	C 683	NCB31CK-103X	C CAPACITOR		
	C 684	NEA70JM-107X	E.CAPACITOR		
	C 685	NEA71CM-476X	E CAPACITOR		
	C 686	NEA71CM-476X	E CAPACITOR		
	C 687	NCB31CK-103X	C CAPACITOR		
	C 688	NEA70JM-107X	E.CAPACITOR		
	C 689	NCB31CK-103X	C CAPACITOR		
	C 690	NEA70JM-107X	E.CAPACITOR		
	C 691	NEA71CM-226X	E.CAPACITOR		
	C 692	NEA71CM-226X	E.CAPACITOR		
	C 693	NCB31CK-103X	C CAPACITOR		
	C 694	NCB31CK-103X	C CAPACITOR		
	C 695	NEA71EM-475X	E.CAPACITOR.		
	C 696	NEA71EM-475X	E.CAPACITOR.		
	C 697	NEA71EM-475X	E.CAPACITOR.		
	C 698	NEA71EM-475X	E.CAPACITOR.		

⚠	Item	Parts number	Parts name	Remarks	Area
	CN681	QGF1016F2-19W	CONNECTOR		
	CN687	QGF1016F2-13W	CONNECTOR C.M		
	C2500	NEA71CM-226X	E.CAPACITOR		
	C2501	NCB31AK-474X	C CAPACITOR		
	C2503	NEA71EM-475X	E.CAPACITOR.		
	C2504	NEA71EM-475X	E.CAPACITOR.		
	C2505	NCS31HJ-560X	C CAPACITOR		
	C2506	NCS31HJ-560X	C CAPACITOR		
	C2507	NCS31HJ-560X	C CAPACITOR		
	C2508	NCS31HJ-560X	C CAPACITOR		
	C2509	NCF31CZ-104X	C CAPACITOR		
	C2510	NCF31CZ-104X	C CAPACITOR		
	C2511	NCB31AK-474X	C CAPACITOR		
	C2512	NCB31AK-474X	C CAPACITOR		
	C2513	NCB31CK-183X	C CAPACITOR		
	C2514	NCB31CK-183X	C CAPACITOR		
	C2515	NCB31HK-182X	C CAPACITOR		
	C2516	NCB31HK-182X	C CAPACITOR		
	C2517	NCB31HK-562X	C CAPACITOR		
	C2518	NCB31HK-562X	C CAPACITOR		
	C2519	NCF31CZ-104X	C CAPACITOR		
	C2520	NCF31CZ-104X	C CAPACITOR		
	C2521	NFV41CJ-103X	M CAPACITOR		
	C2522	NFV41CJ-103X	M CAPACITOR		
	C2523	NFV41HJ-272X	M CAPACITOR		
	C2524	NFV41HJ-272X	M CAPACITOR		
	C2525	NFV41CJ-392X	M CAPACITOR		
	C2526	NFV41CJ-392X	M CAPACITOR		
	C2527	NEA71CM-226X	E.CAPACITOR		
	C2528	NEA71CM-226X	E.CAPACITOR		
	C2529	NCF31CZ-104X	C CAPACITOR		
	C2530	NCF31CZ-104X	C CAPACITOR		
	C2531	NCS31HJ-560X	C CAPACITOR		
	C2532	NCS31HJ-560X	C CAPACITOR		
	C2533	NEA71CM-226X	E.CAPACITOR		
	C2534	NEA71CM-226X	E.CAPACITOR		
	C2539	NCF31CZ-104X	C CAPACITOR		
	C2540	NCF31CZ-104X	C CAPACITOR		
	C2541	NCS31HJ-560X	C CAPACITOR		
	C2542	NCS31HJ-560X	C CAPACITOR		
	C2543	NEA71EM-475X	E.CAPACITOR.		
	C2544	NEA71EM-475X	E.CAPACITOR.		
	C2549	NCF31CZ-104X	C CAPACITOR		
	C2550	NCF31CZ-104X	C CAPACITOR		
	C2551	NCS31HJ-560X	C CAPACITOR		
	C2552	NCS31HJ-560X	C CAPACITOR		
	C2553	NCB31HK-562X	C CAPACITOR		
	C2554	NCB31HK-562X	C CAPACITOR		
	C2555	NCF31CZ-104X	C CAPACITOR		
	C2556	NCF31CZ-104X	C CAPACITOR		
	C2559	NCF31CZ-104X	C CAPACITOR		
	C2560	NCF31CZ-104X	C CAPACITOR		
	C2561	NEA71HM-105X	E.CAPACITOR		
	C2562	NEA71HM-105X	E.CAPACITOR		
	C2563	NCS31HJ-220X	C CAPACITOR		
	C2564	NCS31HJ-220X	C CAPACITOR		
	C2569	NCF31CZ-104X	C CAPACITOR		
	C2570	NCF31CZ-104X	C CAPACITOR		
	C2571	NCB31CK-103X	C CAPACITOR		
	C2572	NCB31CK-103X	C CAPACITOR		
	C2573	NCB31HK-272X	C CAPACITOR		
	C2574	NCB31HK-272X	C CAPACITOR		
	C2575	NCB31HK-392X	C CAPACITOR		

■ **Electrical parts list (DSP board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	C2576	NCB31HK-392X	C CAPACITOR		
	C2577	NEA71EM-475X	E.CAPACITOR.		
	C2578	NEA71EM-475X	E.CAPACITOR.		
	C2579	NCF31CZ-104X	C CAPACITOR		
	C2580	NCF31CZ-104X	C CAPACITOR		
	C2581	NEA71HM-105X	E.CAPACITOR		
	C2582	NEA71CM-106X	E.CAPACITOR		
	C2583	NCS31HJ-220X	C CAPACITOR		
	C2584	NCS31HJ-560X	C CAPACITOR		
	C2589	NCF31CZ-104X	C CAPACITOR		
	C2590	NCF31CZ-104X	C CAPACITOR		
	C2591	NCB31CK-103X	C CAPACITOR		
	C2592	NCB31HK-223X	C CAPACITOR		
	C2593	NCB31HK-272X	C CAPACITOR		
	C2594	NCB31CK-104X	C CAPACITOR		
	C2595	NCB31HK-392X	C CAPACITOR		
	C2597	NEA71EM-475X	E.CAPACITOR.		
	C2598	NEA71EM-475X	E.CAPACITOR.		
	C2599	NCF31CZ-104X	C CAPACITOR		
	C2600	NCF31CZ-104X	C CAPACITOR		
	D 601	1SS355-X	DIODE		
	D 602	1SS355-X	DIODE		
	D 607	1SS355-X	DIODE		
	D 608	1SS355-X	DIODE		
	IC501	BA15218F-XE	IC		
	IC510	BA15218F-XE	IC		
	IC511	BA15218F-XE	IC		
	IC521	BA15218F-XE	IC		
	IC531	BA15218F-XE	IC		
	IC541	BA15218F-XE	IC		
	IC551	BA15218F-XE	IC		
	IC561	BA15218F-XE	IC		
	IC571	BA15218F-XE	IC		
	IC581	BA15218F-XE	IC		
	IC591	BA15218F-XE	IC		
	IC601	AK4527VQ	IC		
	IC602	BU4066BCF-X	IC		
	IC611	BU4066BCF-X	IC		
	IC621	TC7SU04FU-X	IC		
	IC622	TC7SU04FU-X	IC		
	IC631	TC9446F-014	IC		
	IC641	W24L011AJ-15-X	IC		
	IC671	UPD784215AGC103	1C		
	IC672	TC7SET32FU-X	IC		
	IC681	PQ3DZ53-X	IC		
	IC683	PQ3DZ53-X	IC		
	J 601	QNN0347-001	PIN JACK		
	K 501	NQR0269-007X	FERRITE BEADS		
	K 502	NQR0269-007X	FERRITE BEADS		
	K 503	NQR0269-007X	FERRITE BEADS		
	K 504	NQR0269-007X	FERRITE BEADS		
	K 531	NQR0269-007X	FERRITE BEADS		
	K 532	NQR0269-007X	FERRITE BEADS		
	K 541	NQR0269-007X	FERRITE BEADS		
	K 542	NQR0269-007X	FERRITE BEADS		
	K 561	NQR0269-007X	FERRITE BEADS		
	K 562	NQR0269-007X	FERRITE BEADS		
	K 581	NQR0269-007X	FERRITE BEADS		
	K 582	NQR0269-007X	FERRITE BEADS		
	K 601	NQR0269-007X	FERRITE BEADS		
	K 611	NQR0269-007X	FERRITE BEADS		
	K 612	NQR0269-007X	FERRITE BEADS		
	K 613	NQR0269-007X	FERRITE BEADS		

⚠	Item	Parts number	Parts name	Remarks	Area
	K 614	NQR0269-007X	FERRITE BEADS		
	K 615	NQR0269-007X	FERRITE BEADS		
	K 616	NQR0269-007X	FERRITE BEADS		
	K 617	NQR0269-007X	FERRITE BEADS		
	K 618	NQR0269-007X	FERRITE BEADS		
	K 619	NQR0269-007X	FERRITE BEADS		
	K 620	NQR0269-007X	FERRITE BEADS		
	K 621	NQR0269-007X	FERRITE BEADS		
	K 622	NQR0269-007X	FERRITE BEADS		
	K 687	NQR0319-001X	F.BEADS C.M		
	L 661	NQL024J-470X	INDUCTOR CM		
	L 662	NQL024J-470X	INDUCTOR CM		
	L 663	NQL024J-470X	INDUCTOR CM		
	LC601	NQR0321-001X	EMI FILTER C.M		
	LC632	NQR0321-001X	EMI FILTER C.M		
	LC641	NQR0321-001X	EMI FILTER C.M		
	LC671	NQR0321-001X	EMI FILTER C.M		
	Q 601	DTC114YE-X	TRANSISTOR		
	Q 607	DTA144EKA-X	TRANSISTOR		
	Q 670	DTC114YE-X	TRANSISTOR		
	Q 672	DTC114YE-X	TRANSISTOR		
	Q 674	DTC114YE-X	TRANSISTOR		
	Q 675	DTC114YE-X	TRANSISTOR		
	Q2501	DTA144EKA-X	TRANSISTOR		
	Q2521	2SD1328/ST/-X	TRANSISTOR		
	Q2522	2SD1328/ST/-X	TRANSISTOR		
	Q2561	2SD1328/ST/-X	TRANSISTOR		
	Q2562	2SD1328/ST/-X	TRANSISTOR		
	Q2581	2SD1328/ST/-X	TRANSISTOR		
	Q2582	2SD1328/ST/-X	TRANSISTOR		
	R 601	NRSA63J-473X	MG RESISTOR		
	R 602	NRSA63J-473X	MG RESISTOR		
	R 603	NRSA63J-473X	MG RESISTOR		
	R 604	NRSA63J-473X	MG RESISTOR		
	R 605	NRSA63J-473X	MG RESISTOR		
	R 606	NRSA63J-221X	MG RESISTOR		
	R 607	NRSA63J-221X	MG RESISTOR		
	R 608	NRSA63J-221X	MG RESISTOR		
	R 609	NRSA63J-221X	MG RESISTOR		
	R 610	NRSA63J-221X	MG RESISTOR		
	R 611	NRSA63J-332X	MG RESISTOR		
	R 612	NRSA63J-223X	MG RESISTOR		
	R 613	NRSA63J-822X	MG RESISTOR		
	R 615	NRSA63J-432X	MG RESISTOR		
	R 617	NRSA63J-103X	MG RESISTOR		
	R 618	NRSA63J-103X	MG RESISTOR		
	R 619	NRSA63J-221X	MG RESISTOR		
	R 620	NRSA63J-221X	MG RESISTOR		
	R 621	NRSA63J-221X	MG RESISTOR		
	R 622	NRSA63J-750X	MG RESISTOR		
	R 623	NRSA63J-101X	MG RESISTOR		
	R 625	NRSA63J-101X	MG RESISTOR		
	R 627	NRSA63J-472X	MG RESISTOR		
	R 628	NRSA63J-183X	MG RESISTOR		
	R 633	NRSA63J-221X	MG RESISTOR		
	R 636	NRSA63J-0R0X	MG RESISTOR		
	R 637	NRSA63J-0R0X	MG RESISTOR		
	R 639	NRSA63J-472X	MG RESISTOR		
	R 641	NRSA63J-102X	MG RESISTOR		
	R 642	NRSA63J-103X	MG RESISTOR		
	R 643	NRSA63J-101X	MG RESISTOR		
	R 644	NRSA63J-563X	MG RESISTOR		
	R 645	NRSA63J-102X	MG RESISTOR		

■ **Electrical parts list (DSP board)** **Block No. 03**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 646	NRSA63J-103X	MG RESISTOR		
	R 647	NRSA63J-225X	MG RESISTOR		
	R 648	NRSA63J-472X	MG RESISTOR		
	R 649	NRSA63J-1R0X	MG RESISTOR		
	R 650	NRSA63J-1R0X	MG RESISTOR		
	R 657	NRSA63J-103X	MG RESISTOR		
	R 661	NRSA63J-221X	MG RESISTOR		
	R 662	NRSA63J-221X	MG RESISTOR		
	R 663	NRSA63J-221X	MG RESISTOR		
	R 664	NRSA63J-221X	MG RESISTOR		
	R 669	NRSA63J-103X	MG RESISTOR		
	R 670	NRSA63J-103X	MG RESISTOR		
	R 673	NRSA63J-563X	MG RESISTOR		
	R 674	NRSA63J-432X	MG RESISTOR		
	R 675	NRSA63J-432X	MG RESISTOR		
	R 676	NRSA63J-432X	MG RESISTOR		
	R 677	NRSA63J-104X	MG RESISTOR		
	R 678	NRSA63J-822X	MG RESISTOR		
	R 679	NRSA63J-822X	MG RESISTOR		
	R 680	NRSA63J-822X	MG RESISTOR		
	R 681	NRSA63J-103X	MG RESISTOR		
	R 682	NRSA63J-103X	MG RESISTOR		
	R 683	NRSA63J-0R0X	MG RESISTOR		
	R 685	NRSA63J-103X	MG RESISTOR		
	R 687	NRSA63J-102X	MG RESISTOR		
	R 691	NRSA63J-104X	MG RESISTOR		
	R 692	NRSA63J-104X	MG RESISTOR		
	R 695	NRSA63J-104X	MG RESISTOR		
	R 696	NRSA63J-104X	MG RESISTOR		
	R 697	NRSA63J-104X	MG RESISTOR		
	R 698	NRSA63J-104X	MG RESISTOR		
	R2500	NRSA63J-222X	MG RESISTOR		
	R2501	NRSA63J-104X	MG RESISTOR		
	R2502	NRSA63J-104X	MG RESISTOR		
	R2503	NRSA63J-183X	MG RESISTOR		
	R2504	NRSA63J-183X	MG RESISTOR		
	R2505	NRSA63J-103X	MG RESISTOR		
	R2506	NRSA63J-103X	MG RESISTOR		
	R2507	NRSA63J-103X	MG RESISTOR		
	R2508	NRSA63J-103X	MG RESISTOR		
	R2509	NRSA63J-103X	MG RESISTOR		
	R2510	NRSA63J-103X	MG RESISTOR		
	R2511	NRSA63J-102X	MG RESISTOR		
	R2512	NRSA63J-102X	MG RESISTOR		
	R2513	NRSA63J-102X	MG RESISTOR		
	R2514	NRSA63J-102X	MG RESISTOR		
	R2515	NRSA63J-102X	MG RESISTOR		
	R2516	NRSA63J-102X	MG RESISTOR		
	R2517	NRSA63J-102X	MG RESISTOR		
	R2518	NRSA63J-102X	MG RESISTOR		
	R2519	NRSA63J-102X	MG RESISTOR		
	R2520	NRSA63J-102X	MG RESISTOR		
	R2521	NRSA63J-102X	MG RESISTOR		
	R2522	NRSA63J-102X	MG RESISTOR		
	R2523	NRSA63J-102X	MG RESISTOR		
	R2524	NRSA63J-102X	MG RESISTOR		
	R2525	NRSA63J-102X	MG RESISTOR		
	R2526	NRSA63J-102X	MG RESISTOR		
	R2527	NRSA63J-104X	MG RESISTOR		
	R2528	NRSA63J-104X	MG RESISTOR		
	R2529	NRSA63J-103X	MG RESISTOR		
	R2530	NRSA63J-103X	MG RESISTOR		
	R2531	NRSA63J-113X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R2532	NRSA63J-113X	MG RESISTOR		
	R2533	NRSA63J-103X	MG RESISTOR		
	R2534	NRSA63J-103X	MG RESISTOR		
	R2535	NRSA63J-103X	MG RESISTOR		
	R2536	NRSA63J-103X	MG RESISTOR		
	R2537	NRSA63J-104X	MG RESISTOR		
	R2538	NRSA63J-104X	MG RESISTOR		
	R2541	NRSA63J-113X	MG RESISTOR		
	R2542	NRSA63J-113X	MG RESISTOR		
	R2543	NRSA63J-103X	MG RESISTOR		
	R2544	NRSA63J-103X	MG RESISTOR		
	R2545	NRSA63J-562X	MG RESISTOR		
	R2546	NRSA63J-562X	MG RESISTOR		
	R2547	NRSA63J-104X	MG RESISTOR		
	R2548	NRSA63J-104X	MG RESISTOR		
	R2551	NRSA63J-103X	MG RESISTOR		
	R2552	NRSA63J-103X	MG RESISTOR		
	R2553	NRSA63J-333X	MG RESISTOR		
	R2554	NRSA63J-333X	MG RESISTOR		
	R2560	NRSA63J-105X	MG RESISTOR		
	R2561	NRSA63J-104X	MG RESISTOR		
	R2562	NRSA63J-104X	MG RESISTOR		
	R2563	NRSA63J-103X	MG RESISTOR		
	R2564	NRSA63J-103X	MG RESISTOR		
	R2565	NRSA63J-122X	MG RESISTOR		
	R2566	NRSA63J-122X	MG RESISTOR		
	R2567	NRSA63J-103X	MG RESISTOR		
	R2568	NRSA63J-103X	MG RESISTOR		
	R2571	NRSA63J-102X	MG RESISTOR		
	R2572	NRSA63J-102X	MG RESISTOR		
	R2573	NRSA63J-102X	MG RESISTOR		
	R2574	NRSA63J-102X	MG RESISTOR		
	R2575	NRSA63J-102X	MG RESISTOR		
	R2576	NRSA63J-102X	MG RESISTOR		
	R2577	NRSA63J-104X	MG RESISTOR		
	R2578	NRSA63J-104X	MG RESISTOR		
	R2581	NRSA63J-104X	MG RESISTOR		
	R2582	NRSA63J-104X	MG RESISTOR		
	R2583	NRSA63J-103X	MG RESISTOR		
	R2584	NRSA63J-124X	MG RESISTOR		
	R2585	NRSA63J-122X	MG RESISTOR		
	R2586	NRSA63J-392X	MG RESISTOR		
	R2587	NRSA63J-103X	MG RESISTOR		
	R2588	NRSA63J-103X	MG RESISTOR		
	R2590	NRSA63J-333X	MG RESISTOR		
	R2591	NRSA63J-102X	MG RESISTOR		
	R2592	NRSA63J-333X	MG RESISTOR		
	R2593	NRSA63J-102X	MG RESISTOR		
	R2594	NRSA63J-333X	MG RESISTOR		
	R2595	NRSA63J-102X	MG RESISTOR		
	R2596	NRSA63J-102X	MG RESISTOR		
	R2597	NRSA63J-104X	MG RESISTOR		
	R2598	NRSA63J-104X	MG RESISTOR		
	UN661	GP1FA550RZ	OPT RECEIVER		
	UN662	GP1FA550RZ	OPT RECEIVER		
	UN663	GP1FA550TZ	OPT TRANSMITTER		
	X 631	NAX0385-001X	CRYSTAL	22.5792MHZ	
	X 671	NAX0275-001X	C OSCIALLATOR	6.14MHZ	

■ **Electrical parts list (DVD mecha board)** **Block No. 04**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 17	NCS31HJ-101X	C.CAPACITOR		
	C 18	NCS31HJ-101X	C.CAPACITOR		
	C 19	NCS31HJ-101X	C.CAPACITOR		
	CN 11	QGF1016F2-37W	CONNECTOR	TO MAIN	
	CN 12	QGF1016C2-21W	CONNECTOR	TO MECHA	
	CN 13	QGF1016F2-17W	CONNECTOR	TO MECHA	
	K 11	NQR0265-003X	FERRITE BEADS		
	K 12	NQR0265-003X	FERRITE BEADS		
	K 13	NQR0265-003X	FERRITE BEADS		
	K 14	NQR0265-003X	FERRITE BEADS		
	K 15	NQR0265-003X	FERRITE BEADS		
	K 16	NQR0265-002X	FERRITE BEADS		
	K 21	NQR0265-003X	FERRITE BEADS		
	K 22	NQR0265-003X	FERRITE BEADS		
	R 21	NRSA63J-0R0X	MG RESISTOR		
	R 23	NRSA63J-0R0X	MG RESISTOR		
	R 24	NRSA63J-0R0X	MG RESISTOR		
	R 25	NRSA63J-0R0X	MG RESISTOR		
	R 26	NRSA63J-0R0X	MG RESISTOR		
	R 28	NRSA63J-0R0X	MG RESISTOR		
	R 30	NRSA63J-0R0X	MG RESISTOR		
	R 31	NRSA63J-0R0X	MG RESISTOR		

■ **Electrical parts list (DVD board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 1	QCS31HJ-331Z	C CAPACITOR	330PF 5% 50V	
	C 5	NCB21CK-104X	C.CAPACITOR		
	C 6	NCB21CK-104X	C.CAPACITOR		
	C 7	NCS21HJ-151X	C CAPACITOR		
	C 8	NCB21CK-104X	C.CAPACITOR		
	C 101	NCB31CK-104X	C CAPACITOR		
	C 102	NEA70JM-476X	E.CAPACITOR		
	C 103	NCB31CK-104X	C CAPACITOR		
	C 104	NCS31HJ-560X	C CAPACITOR		
	C 105	NCS31HJ-101X	C.CAPACITOR		
	C 106	NEA71CM-106X	E.CAPACITOR		
	C 107	NCB31CK-104X	C CAPACITOR		
	C 108	NCB31CK-104X	C CAPACITOR		
	C 109	NCB31CK-104X	C CAPACITOR		
	C 110	NCS31HJ-101X	C.CAPACITOR		
	C 111	NCB21CK-184X	C CAPACITOR		
	C 112	NCB31CK-104X	C CAPACITOR		
	C 113	NCB31CK-104X	C CAPACITOR		
	C 114	NCB31CK-104X	C CAPACITOR		
	C 115	NCB31HK-392X	C CAPACITOR		
	C 116	NCB31CK-104X	C CAPACITOR		
	C 117	NCB11CK-105X	C CAPACITOR		
	C 118	NEX40JM-336X	E CAPACITOR		
	C 119	NCB31CK-104X	C CAPACITOR		
	C 120	NCB31CK-104X	C CAPACITOR		
	C 121	NCB21CK-334X	C CAPACITOR		
	C 122	NCS31HJ-121X	C CAPACITOR		
	C 123	NCB31CK-104X	C CAPACITOR		
	C 124	NCB31CK-104X	C CAPACITOR		
	C 125	NCB31CK-104X	C CAPACITOR		
	C 126	NCS31HJ-221X	C CAPACITOR		
	C 127	NCS31HJ-221X	C CAPACITOR		
	C 128	NCB31CK-104X	C CAPACITOR		
	C 129	NCB21CK-224X	C CAPACITOR		
	C 130	NCB31HK-102X	C CAPACITOR		
	C 131	NCB31HK-681X	C CAPACITOR		
	C 132	NCB31CK-104X	C CAPACITOR		
	C 133	NEX40JM-566X	E CAPACITOR		
	C 134	NCB11CK-105X	C CAPACITOR		
	C 135	NCS31HJ-221X	C CAPACITOR		
	C 136	NCB31CK-104X	C CAPACITOR		
	C 137	NCB31CK-104X	C CAPACITOR		
	C 138	NCB31CK-104X	C CAPACITOR		
	C 139	NCB31CK-104X	C CAPACITOR		
	C 140	NCB31CK-104X	C CAPACITOR		
	C 141	NCS31HJ-820X	C CAPACITOR		
	C 142	NCB31HK-222X	C CAPACITOR		
	C 143	NCB21CK-224X	C CAPACITOR		
	C 144	NCB31CK-104X	C CAPACITOR		
	C 145	NCB11CK-105X	C CAPACITOR		
	C 151	NEX40JM-156X	E.CAPACITOR		
	C 152	NEX40JM-156X	E.CAPACITOR		
	C 153	NCB31CK-104X	C CAPACITOR		
	C 154	NCB31CK-104X	C CAPACITOR		
	C 191	NCB31CK-104X	C CAPACITOR		
	C 192	NEA70JM-107X	E.CAPACITOR		
	C 201	NCB31CK-104X	C CAPACITOR		
	C 202	NCB31CK-393X	C CAPACITOR		
	C 203	NCB31CK-393X	C CAPACITOR		
	C 204	NCB31CK-393X	C CAPACITOR		
	C 205	NCB31CK-393X	C CAPACITOR		
	C 206	NCB31CK-104X	C CAPACITOR		
	C 208	NCB31CK-104X	C CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C 209	NCB31CK-104X	C CAPACITOR		
	C 210	NCB31CK-104X	C CAPACITOR		
	C 211	NCB31CK-104X	C CAPACITOR		
	C 212	NCB31CK-104X	C CAPACITOR		
	C 213	NCB31CK-104X	C CAPACITOR		
	C 214	NCB31CK-104X	C CAPACITOR		
	C 215	NCB31HK-392X	C CAPACITOR		
	C 217	NCB31HK-821X	C CAPACITOR		
	C 218	NCB31HK-331X	C CAPACITOR		
	C 219	NCB31HK-471X	C CAPACITOR		
	C 221	NCB31HK-271X	C CAPACITOR		
	C 222	NCB31HK-821X	C CAPACITOR		
	C 223	NCB31HK-821X	C CAPACITOR		
	C 224	NEA70JM-226X	E CAPACITOR		
	C 225	NCB11CK-105X	C CAPACITOR		
	C 226	NCB31CK-104X	C CAPACITOR		
	C 227	NCB31CK-104X	C CAPACITOR		
	C 228	NEA70JM-107X	E.CAPACITOR		
	C 229	NCB11CK-105X	C CAPACITOR		
	C 230	NCB31CK-104X	C CAPACITOR		
	C 231	NCB31CK-104X	C CAPACITOR		
	C 232	NCB31CK-104X	C CAPACITOR		
	C 233	NCS31HJ-330X	C CAPACITOR		
	C 234	NCB31HK-331X	C CAPACITOR		
	C 235	NCB31CK-104X	C CAPACITOR		
	C 236	NCB31CK-823X	C CAPACITOR		
	C 237	NCB31CK-823X	C CAPACITOR		
	C 241	NCB31CK-104X	C CAPACITOR		
	C 242	NEA70JM-107X	E.CAPACITOR		
	C 251	NCB31CK-104X	C CAPACITOR		
	C 252	NCB31CK-104X	C CAPACITOR		
	C 253	NCB31CK-104X	C CAPACITOR		
	C 254	NCB31CK-104X	C CAPACITOR		
	C 255	NEA70JM-226X	E CAPACITOR		
	C 256	NCB31CK-104X	C CAPACITOR		
	C 257	NCB31CK-104X	C CAPACITOR		
	C 258	NEA71CM-226X	E.CAPACITOR		
	C 259	NCB31CK-104X	C CAPACITOR		
	C 261	NCB31CK-104X	C CAPACITOR		
	C 262	NCB31CK-104X	C CAPACITOR		
	C 263	NCB31CK-104X	C CAPACITOR		
	C 264	NCB31CK-104X	C CAPACITOR		
	C 271	NCB31CK-104X	C CAPACITOR		
	C 273	NCB31HK-102X	C CAPACITOR		
	C 275	NCB31HK-102X	C CAPACITOR		
	C 276	NCB31CK-104X	C CAPACITOR		
	C 281	NEA70JM-226X	E CAPACITOR		
	C 282	NCB31CK-104X	C CAPACITOR		
	C 284	NCB31HK-102X	C CAPACITOR		
	C 286	NCB31HK-102X	C CAPACITOR		
	C 287	NCB31CK-104X	C CAPACITOR		
	C 288	NEA71CM-226X	E.CAPACITOR		
	C 291	NCB31CK-104X	C CAPACITOR		
	C 292	NEA71CM-476X	E CAPACITOR		
	C 301	NCB31CK-104X	C CAPACITOR		
	C 302	NCB31CK-104X	C CAPACITOR		
	C 303	NCB31CK-104X	C CAPACITOR		
	C 304	NCB31CK-104X	C CAPACITOR		
	C 305	NCB31CK-104X	C CAPACITOR		
	C 306	NCB31CK-104X	C CAPACITOR		
	C 307	NCB31CK-104X	C CAPACITOR		
	C 308	NCB31CK-103X	C CAPACITOR		
	C 309	NCB31CK-104X	C CAPACITOR		

■ **Electrical parts list (DVD board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 310	NCB31CK-104X	C CAPACITOR		
	C 311	NCB31CK-104X	C CAPACITOR		
	C 314	NCB31CK-104X	C CAPACITOR		
	C 315	NCB31CK-104X	C CAPACITOR		
	C 316	NEA70JM-107X	E.CAPACITOR		
	C 317	NCB11CK-105X	C CAPACITOR		
	C 318	NCB31CK-104X	C CAPACITOR		
	C 319	NCB31CK-104X	C CAPACITOR		
	C 320	NCB31CK-104X	C CAPACITOR		
	C 321	NCB31CK-104X	C CAPACITOR		
	C 322	NEA70JM-107X	E.CAPACITOR		
	C 323	NCB11CK-105X	C CAPACITOR		
	C 324	NCB31CK-104X	C CAPACITOR		
	C 341	NCB31CK-104X	C CAPACITOR		
	C 342	NCB31CK-104X	C CAPACITOR		
	C 343	NCB31CK-104X	C CAPACITOR		
	C 344	NCB31CK-104X	C CAPACITOR		
	C 371	NCS31HJ-100X	C CAPACITOR		
	C 372	NCS31HJ-100X	C CAPACITOR		
	C 373	NCB31CK-104X	C CAPACITOR		
	C 374	NCB31CK-104X	C CAPACITOR		
	C 376	NCB31CK-104X	C CAPACITOR		
	C 391	NCB31CK-104X	C CAPACITOR		
	C 392	NEA70JM-226X	E CAPACITOR		
	C 401	NCB31CK-104X	C CAPACITOR		
	C 402	NCB31CK-104X	C CAPACITOR		
	C 405	NCB31CK-104X	C CAPACITOR		
	C 406	NCB31CK-104X	C CAPACITOR		
	C 407	NCB31CK-104X	C CAPACITOR		
	C 408	NEA70JM-226X	E CAPACITOR		
	C 409	NCB31CK-104X	C CAPACITOR		
	C 411	NCB31CK-104X	C CAPACITOR		
	C 412	NCB31CK-104X	C CAPACITOR		
	C 441	NCB31CK-104X	C CAPACITOR		
	C 442	NEX40JM-156X	E.CAPACITOR		
	C 452	NCB31CK-104X	C CAPACITOR		
	C 491	NCB31CK-104X	C CAPACITOR		
	C 492	NEA70JM-226X	E CAPACITOR		
	C 501	NCB31CK-104X	C CAPACITOR		
	C 502	NCB31CK-104X	C CAPACITOR		
	C 503	NCB31CK-104X	C CAPACITOR		
	C 504	NCB31CK-104X	C CAPACITOR		
	C 505	NCB31CK-104X	C CAPACITOR		
	C 506	NCB31CK-104X	C CAPACITOR		
	C 507	NCB31CK-104X	C CAPACITOR		
	C 508	NCB31CK-104X	C CAPACITOR		
	C 509	NCB31CK-104X	C CAPACITOR		
	C 510	NCB31CK-104X	C CAPACITOR		
	C 511	NCB31CK-104X	C CAPACITOR		
	C 512	NCB31CK-104X	C CAPACITOR		
	C 513	NCB31CK-104X	C CAPACITOR		
	C 514	NCB31CK-104X	C CAPACITOR		
	C 515	NCB31CK-104X	C CAPACITOR		
	C 516	NCB31CK-104X	C CAPACITOR		
	C 517	NCB31CK-104X	C CAPACITOR		
	C 518	NCB31CK-104X	C CAPACITOR		
	C 519	NCB31CK-104X	C CAPACITOR		
	C 520	NCB31CK-104X	C CAPACITOR		
	C 521	NCB31CK-104X	C CAPACITOR		
	C 522	NCB31CK-104X	C CAPACITOR		
	C 523	NCB31CK-104X	C CAPACITOR		
	C 524	NCB31CK-104X	C CAPACITOR		
	C 525	NCB31CK-104X	C CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C 526	NCB31CK-104X	C CAPACITOR		
	C 527	NCB31CK-104X	C CAPACITOR		
	C 528	NCB31CK-104X	C CAPACITOR		
	C 529	NCB31CK-104X	C CAPACITOR		
	C 530	NEA70JM-107X	E.CAPACITOR		
	C 531	NCB31CK-104X	C CAPACITOR		
	C 532	NCB31CK-104X	C CAPACITOR		
	C 533	NCB31CK-104X	C CAPACITOR		
	C 534	NEA70JM-107X	E.CAPACITOR		
	C 535	NCB31CK-104X	C CAPACITOR		
	C 536	NCB31CK-103X	C CAPACITOR		
	C 537	NEA70JM-226X	E CAPACITOR		
	C 538	NCB31CK-104X	C CAPACITOR		
	C 539	NCB31CK-104X	C CAPACITOR		
	C 540	NEA70JM-226X	E CAPACITOR		
	C 541	NCB31CK-104X	C CAPACITOR		
	C 542	NEA70JM-226X	E CAPACITOR		
	C 543	NCB31CK-104X	C CAPACITOR		
	C 551	NCB31CK-104X	C CAPACITOR		
	C 552	NCB31CK-104X	C CAPACITOR		
	C 553	NCB31CK-104X	C CAPACITOR		
	C 554	NCB31CK-104X	C CAPACITOR		
	C 555	NEA70JM-226X	E CAPACITOR		
	C 556	NCB31CK-104X	C CAPACITOR		
	C 557	NCB31CK-104X	C CAPACITOR		
	C 558	NEA70JM-226X	E CAPACITOR		
	C 559	NCB31CK-104X	C CAPACITOR		
	C 561	NCB31CK-104X	C CAPACITOR		
	C 562	NEA70JM-226X	E CAPACITOR		
	C 563	NCB31CK-104X	C CAPACITOR		
	C 564	NCB31CK-104X	C CAPACITOR		
	C 565	NCB31CK-104X	C CAPACITOR		
	C 566	NCB31CK-104X	C CAPACITOR		
	C 567	NEA70JM-226X	E CAPACITOR		
	C 568	NCB31CK-104X	C CAPACITOR		
	C 569	NEA70JM-226X	E CAPACITOR		
	C 571	NCB31CK-104X	C CAPACITOR		
	C 572	NEX40JM-156X	E.CAPACITOR		
	CN101	QGF1016C2-37W	CONNECTOR	MECHA	
	CN103	QGF1016C2-07W	CONNECTOR	LOADING	
	CN104	QGA2001C2-12X	W TO B CONNE		
	CN501	QGA2001C2-08X	W TO B CONNE	POWER	
	CN502	QGF1016C2-35W	CONNECTOR	SYSTEM	
	CN503	QGA2001C2-10X	W TO B CONNE	VIDEO	
	D 201	1SS355-X	DIODE		
	D 202	1SS355-X	DIODE		
	D 203	1SS355-X	DIODE		
	D 272	DAP202K-X	D.TRANSISTOR		
	D 402	1SS355-X	DIODE		
	D 403	1SS355-X	DIODE		
	D 551	1SS355-X	DIODE		
	D 552	1SS355-X	DIODE		
	IC101	AN8706FHQ	IC		
	IC102	RN5RZ20BA-X	IC		
	IC201	MN67705EA	IC		
	IC251	AN8485SB-W	IC		
	IC271	BA5983FM-X	IC		
	IC301	MN103007BGA	IC		
	IC311	TC7SH08FU-X	IC		
	IC312	TC7SH32FU-X	IC		
	IC321	TC7WH74FU-X	IC		
	IC322	TC74VHC00FT-X	IC		
	IC371	TC7SHU04FU-X	IC(DIGITAL)		

■ **Electrical parts list (DVD board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	IC372	TC7SHU04FU-X	IC(DIGITAL)		
	IC374	TC7WH74FU-X	IC		
	IC401	MN102L25GHJ	IC C.M.		
	IC402	MSM531622F78G-X	IC		
	IC403	AK93C65AF-X	IC		
	IC452	TC7WT125FU-X	IC(DIGITAL)		
	IC501	ZIVA-3-PD0	IC		
	IC502	NAX0265-001X	IC	27MHZ	
	IC503	TC74VHC00FT-X	IC		
	IC504	HY57V161610DTC8	IC	HYUNDAI	
	IC505	HY57V161610DTC8	IC	HYUNDAI	
	IC551	JCE8011	IC(DIGITAL)		
	IC552	MN4777AS-XE	IC C.M		
	IC553	MSM531622F82G-X	IC		
	IC554	MC44724AVFU	IC		
	IC555	MC33269D-X	IC C.M		
	K 101	NQR0007-002X	FERRITE BEADS		
	K 102	NQR0007-002X	FERRITE BEADS		
	K 103	NQR0007-002X	FERRITE BEADS		
	K 155	NQR0007-002X	FERRITE BEADS		
	K 156	NQR0007-002X	FERRITE BEADS		
	K 157	NQR0007-002X	FERRITE BEADS		
	K 158	NQR0007-002X	FERRITE BEADS		
	K 159	NQR0007-002X	FERRITE BEADS		
	K 160	NQR0007-002X	FERRITE BEADS		
	K 201	NQR0007-002X	FERRITE BEADS		
	K 202	NQR0007-002X	FERRITE BEADS		
	K 251	NQR0007-002X	FERRITE BEADS		
	K 271	NQR0007-002X	FERRITE BEADS		
	K 301	NQR0007-002X	FERRITE BEADS		
	K 302	NQR0007-002X	FERRITE BEADS		
	K 371	NQR0007-002X	FERRITE BEADS		
	K 401	NQR0007-002X	FERRITE BEADS		
	K 402	NQR0007-002X	FERRITE BEADS		
	K 501	NQR0007-002X	FERRITE BEADS		
	K 502	NQR0007-002X	FERRITE BEADS		
	K 503	NQR0007-002X	FERRITE BEADS		
	K 504	NQR0201-001X	FERRITE BEADS		
	K 505	NQR0269-001X	FERRITE BEADS		
	K 550	NQR0007-002X	FERRITE BEADS		
	K 551	NQR0007-002X	FERRITE BEADS		
	K 552	NQR0007-002X	FERRITE BEADS		
	K 553	NQR0007-002X	FERRITE BEADS		
	K 554	NQR0007-002X	FERRITE BEADS		
	K 555	NQR0007-002X	FERRITE BEADS		
	K 556	NQR0007-002X	FERRITE BEADS		
	K 557	NQR0007-002X	FERRITE BEADS		
	K 558	NQR0007-002X	FERRITE BEADS		
	K 559	NQR0007-002X	FERRITE BEADS		
	K 561	NQR0007-002X	FERRITE BEADS		
	K 562	NQR0007-002X	FERRITE BEADS		
	K 563	NQR0007-002X	FERRITE BEADS		
	K 564	NQR0007-002X	FERRITE BEADS		
	K 565	NQR0007-002X	FERRITE BEADS		
	K 566	NQR0007-002X	FERRITE BEADS		
	K 567	NQR0007-002X	FERRITE BEADS		
	K 568	NQR0007-002X	FERRITE BEADS		
	K 569	NQR0007-002X	FERRITE BEADS		
	K 570	NQR0007-002X	FERRITE BEADS		
	K 571	NQR0007-002X	FERRITE BEADS		
	K 572	NQR0007-002X	FERRITE BEADS		
	K 573	NQR0007-002X	FERRITE BEADS		
	K 574	NQR0007-002X	FERRITE BEADS		

⚠	Item	Parts number	Parts name	Remarks	Area
	K 575	NQR0007-002X	FERRITE BEADS		
	K 576	NQR0007-002X	FERRITE BEADS		
	K 577	NQR0007-002X	FERRITE BEADS		
	K 578	NQR0007-002X	FERRITE BEADS		
	K 579	NQR0007-002X	FERRITE BEADS		
	K 581	NQR0007-002X	FERRITE BEADS		
	K 582	NQR0007-002X	FERRITE BEADS		
	K 583	NQR0007-002X	FERRITE BEADS		
	K 584	NQR0007-002X	FERRITE BEADS		
	K 585	NQR0007-002X	FERRITE BEADS		
	K 586	NQR0007-002X	FERRITE BEADS		
	K 587	NQR0007-002X	FERRITE BEADS		
	K 589	NQR0007-002X	FERRITE BEADS		
	K 590	NQR0007-002X	FERRITE BEADS		
	K 591	NQR0007-002X	FERRITE BEADS		
	K 592	NQR0007-002X	FERRITE BEADS		
	L 191	NQL044K-100X	INDUCTOR		
	L 241	NQL044K-100X	INDUCTOR		
	Q 101	2SB1424/QR/-X	TRANSISTOR		
	Q 102	DTC124EE-X	DIGI TRANSISTOR		
	Q 103	DTA124EE-X	DIGI TRANSISTOR		
	Q 104	DTC124EE-X	DIGI TRANSISTOR		
	Q 105	DTC144EE-X	TRANSISTOR		
	Q 251	DTC144EE-X	TRANSISTOR		
	Q 252	DTC144EE-X	TRANSISTOR		
	Q 253	DTC144EE-X	TRANSISTOR		
	Q 254	DTC144EE-X	TRANSISTOR		
	Q 255	DTC144EE-X	TRANSISTOR		
	R 101	NRS125J-270X	MG RESISTOR		
	R 102	NRS125J-2R2X	MG RESISTOR		
	R 103	NRSA63J-123X	MG RESISTOR		
	R 104	NRSA63J-103X	MG RESISTOR		
	R 106	NRSA63J-223X	MG RESISTOR		
	R 108	NRSA63J-103X	MG RESISTOR		
	R 109	NRSA63J-823X	MG RESISTOR		
	R 110	NRSA63J-393X	MG RESISTOR		
	R 112	NRVA63D-123X	MG RESISTOR		
	R 113	NRSA63J-393X	MG RESISTOR		
	R 114	NRSA63J-272X	MG RESISTOR		
	R 115	NRSA63J-223X	MG RESISTOR		
	R 116	NRSA63J-103X	MG RESISTOR		
	R 117	NRSA63J-223X	MG RESISTOR		
	R 118	NRSA63J-153X	MG RESISTOR		
	R 119	NRSA63J-155X	MG RESISTOR		
	R 120	NRVA63D-332X	MF RESISTOR		
	R 121	NRSA63J-474X	MG RESISTOR		
	R 122	NRSA63J-474X	MG RESISTOR		
	R 123	NRSA63J-822X	MG RESISTOR		
	R 124	NRSA63J-183X	MG RESISTOR		
	R 125	NRSA63J-154X	MG RESISTOR		
	R 126	NRSA63J-564X	MG RESISTOR		
	R 127	NRSA63J-123X	MG RESISTOR		
	R 128	NRSA63J-223X	MG RESISTOR		
	R 129	NRSA63J-103X	MG RESISTOR		
	R 130	NRSA63J-822X	MG RESISTOR		
	R 131	NRSA63J-0R0X	MG RESISTOR		
	R 151	NRSA63J-0R0X	MG RESISTOR		
	R 152	NRSA63J-0R0X	MG RESISTOR		
	R 153	NRSA63J-0R0X	MG RESISTOR		
	R 154	NRSA63J-0R0X	MG RESISTOR		
	R 201	NRSA63J-102X	MG RESISTOR		
	R 202	NRSA63J-102X	MG RESISTOR		
	R 203	NRSA63J-102X	MG RESISTOR		

■ **Electrical parts list (DVD board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 204	NRSA63J-102X	MG RESISTOR		
	R 205	NRSA63J-473X	MG RESISTOR		
	R 206	NRSA63J-102X	MG RESISTOR		
	R 207	NRSA63J-473X	MG RESISTOR		
	R 208	NRSA63J-102X	MG RESISTOR		
	R 209	NRSA63J-473X	MG RESISTOR		
	R 210	NRSA63J-473X	MG RESISTOR		
	R 211	NRSA63J-102X	MG RESISTOR		
	R 212	NRSA63J-102X	MG RESISTOR		
	R 213	NRSA63J-183X	MG RESISTOR		
	R 214	NRSA63J-822X	MG RESISTOR		
	R 215	NRSA63J-473X	MG RESISTOR		
	R 216	NRSA63J-473X	MG RESISTOR		
	R 217	NRSA63J-0R0X	MG RESISTOR		
	R 218	NRSA63J-0R0X	MG RESISTOR		
	R 219	NRSA63J-0R0X	MG RESISTOR		
	R 220	NRSA63J-472X	MG RESISTOR		
	R 221	NRSA63J-0R0X	MG RESISTOR		
	R 222	NRSA63J-0R0X	MG RESISTOR		
	R 223	NRSA63J-0R0X	MG RESISTOR		
	R 224	NRSA63J-0R0X	MG RESISTOR		
	R 225	NRSA63J-0R0X	MG RESISTOR		
	R 226	NRSA63J-0R0X	MG RESISTOR		
	R 227	NRSA63J-0R0X	MG RESISTOR		
	R 228	NRSA63J-103X	MG RESISTOR		
	R 229	NRSA63J-0R0X	MG RESISTOR		
	R 230	NRSA63J-103X	MG RESISTOR		
	R 231	NRVA63D-683X	MF RESISTOR		
	R 232	NRVA63D-683X	MF RESISTOR		
	R 233	NRSA63J-103X	MG RESISTOR		
	R 234	NRSA63J-103X	MG RESISTOR		
	R 235	NRSA63J-473X	MG RESISTOR		
	R 236	NRSA63J-123X	MG RESISTOR		
	R 237	NRSA63J-0R0X	MG RESISTOR		
	R 238	NRSA63J-223X	MG RESISTOR		
	R 239	NRSA63J-333X	MG RESISTOR		
	R 240	NRSA63J-333X	MG RESISTOR		
	R 241	NRVA63D-362X	MG RESISTOR		
	R 242	NRSA63J-102X	MG RESISTOR		
	R 243	NRSA63J-472X	MG RESISTOR		
	R 244	NRSA63J-102X	MG RESISTOR		
	R 245	NRVA63D-103X	MF RESISTER		
	R 246	NRVA63D-183X	MG RESISTOR		
	R 247	NRVA63D-103X	MF RESISTER		
	R 248	NRVA63D-183X	MG RESISTOR		
	R 249	NRSA63J-102X	MG RESISTOR		
	R 251	NRSA63J-271X	MG RESISTOR		
	R 252	NRSA63J-271X	MG RESISTOR		
	R 253	NRSA63J-0R0X	MG RESISTOR		
	R 254	NRSA63J-0R0X	MG RESISTOR		
	R 255	NRSA63J-103X	MG RESISTOR		
	R 256	NRSA63J-103X	MG RESISTOR		
	R 257	NRSA63J-103X	MG RESISTOR		
	R 258	NRSA63J-103X	MG RESISTOR		
	R 259	NRSA63J-103X	MG RESISTOR		
	R 260	NRSA63J-562X	MG RESISTOR		
	R 261	NRSA63J-563X	MG RESISTOR		
	R 262	NRS125J-R47X	MG RESISTOR		
	R 263	NRSA63J-103X	MG RESISTOR		
	R 264	NRSA63J-103X	MG RESISTOR		
	R 267	NRSA63J-103X	MG RESISTOR		
	R 268	NRS181J-2R2X	MG RESISTOR		
	R 271	NRSA63J-243X	MG RESISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	R 272	NRSA63J-103X	MG RESISTOR		
	R 273	NRSA63J-103X	MG RESISTOR		
	R 274	NRSA63J-0R0X	MG RESISTOR		
	R 275	NRSA63J-243X	MG RESISTOR		
	R 276	NRSA63J-103X	MG RESISTOR		
	R 277	NRSA63J-103X	MG RESISTOR		
	R 278	NRSA63J-0R0X	MG RESISTOR		
	R 279	NRSA63J-473X	MG RESISTOR		
	R 280	NRSA63J-0R0X	MG RESISTOR		
	R 282	NRSA63J-273X	MG RESISTOR		
	R 283	NRSA63J-103X	MG RESISTOR		
	R 284	NRSA63J-103X	MG RESISTOR		
	R 285	NRSA63J-0R0X	MG RESISTOR		
	R 286	NRSA63J-273X	MG RESISTOR		
	R 287	NRSA63J-103X	MG RESISTOR		
	R 288	NRSA63J-103X	MG RESISTOR		
	R 289	NRSA63J-0R0X	MG RESISTOR		
	R 290	NRSA63J-0R0X	MG RESISTOR		
	R 301	NRSA63J-473X	MG RESISTOR		
	R 302	NRSA63J-473X	MG RESISTOR		
	R 303	NRSA63J-473X	MG RESISTOR		
	R 304	NRSA63J-473X	MG RESISTOR		
	R 305	NRSA63J-473X	MG RESISTOR		
	R 306	NRSA63J-473X	MG RESISTOR		
	R 307	NRSA63J-473X	MG RESISTOR		
	R 308	NRSA63J-473X	MG RESISTOR		
	R 310	NRSA63J-102X	MG RESISTOR		
	R 311	NRSA63J-102X	MG RESISTOR		
	R 312	NRSA63J-102X	MG RESISTOR		
	R 313	NRSA63J-0R0X	MG RESISTOR		
	R 314	NRSA63J-0R0X	MG RESISTOR		
	R 317	NRSA63J-473X	MG RESISTOR		
	R 318	NRSA63J-0R0X	MG RESISTOR		
	R 319	NRSA63J-0R0X	MG RESISTOR		
	R 322	NRSA63J-473X	MG RESISTOR		
	R 324	NRSA63J-473X	MG RESISTOR		
	R 328	NRSA63J-473X	MG RESISTOR		
	R 342	NRSA63J-0R0X	MG RESISTOR		
	R 343	NRSA63J-102X	MG RESISTOR		
	R 371	NRSA63J-105X	MG RESISTOR		
	R 372	NRSA63J-101X	MG RESISTOR		
	R 373	NRSA63J-0R0X	MG RESISTOR		
	R 401	NRSA63J-102X	MG RESISTOR		
	R 402	NRSA63J-102X	MG RESISTOR		
	R 403	NRSA63J-472X	MG RESISTOR		
	R 405	NRSA63J-472X	MG RESISTOR		
	R 408	NRSA63J-472X	MG RESISTOR		
	R 410	NRSA63J-0R0X	MG RESISTOR		
	R 411	NRSA63J-472X	MG RESISTOR		
	R 412	NRSA63J-472X	MG RESISTOR		
	R 413	NRSA63J-472X	MG RESISTOR		
	R 414	NRSA63J-472X	MG RESISTOR		
	R 415	NRSA63J-472X	MG RESISTOR		
	R 416	NRSA63J-472X	MG RESISTOR		
	R 418	NRSA63J-472X	MG RESISTOR		
	R 420	NRSA63J-0R0X	MG RESISTOR		
	R 421	NRSA63J-0R0X	M.G.RESISTOR		EE
	R 422	NRSA63J-0R0X	M.G.RESISTOR		EE
	R 423	NRSA63J-0R0X	MG RESISTOR		B,E,EN
	R 424	NRSA63J-0R0X	MG RESISTOR		
	R 431	NRSA63J-472X	MG RESISTOR		
	R 432	NRSA63J-472X	MG RESISTOR		
	R 461	NRSA63J-0R0X	MG RESISTOR		

■ **Electrical parts list (DVD board)** **Block No. 05**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 462	NRSA63J-0R0X	MG RESISTOR		
	R 491	NRSA63J-472X	MG RESISTOR		
	R 492	NRSA63J-472X	MG RESISTOR		
	R 501	NRSA63J-102X	MG RESISTOR		
	R 502	NRSA63J-222X	MG RESISTOR		
	R 503	NRSA63J-103X	MG RESISTOR		
	R 504	NRSA63J-330X	MG RESISTOR		
	R 505	NRSA63J-330X	MG RESISTOR		
	R 506	NRSA63J-330X	MG RESISTOR		
	R 507	NRSA63J-330X	MG RESISTOR		
	R 508	NRSA63J-330X	MG RESISTOR		
	R 509	NRSA63J-330X	MG RESISTOR		
	R 510	NRSA63J-330X	MG RESISTOR		
	R 511	NRSA63J-330X	MG RESISTOR		
	R 512	NRSA63J-330X	MG RESISTOR		
	R 513	NRSA63J-330X	MG RESISTOR		
	R 514	NRSA63J-330X	MG RESISTOR		
	R 515	NRSA63J-330X	MG RESISTOR		
	R 516	NRSA63J-330X	MG RESISTOR		
	R 517	NRSA63J-330X	MG RESISTOR		
	R 518	NRSA63J-330X	MG RESISTOR		
	R 519	NRSA63J-330X	MG RESISTOR		
	R 520	NRSA63J-330X	MG RESISTOR		
	R 521	NRSA63J-330X	MG RESISTOR		
	R 522	NRSA63J-330X	MG RESISTOR		
	R 523	NRSA63J-181X	MG RESISTOR		
	R 524	NRSA63J-181X	MG RESISTOR		
	R 525	NRSA63J-181X	MG RESISTOR		
	R 526	NRSA63J-181X	MG RESISTOR		
	R 527	NRSA63J-181X	MG RESISTOR		
	R 528	NRSA63J-181X	MG RESISTOR		
	R 529	NRSA63J-181X	MG RESISTOR		
	R 530	NRSA63J-181X	MG RESISTOR		
	R 531	NRSA63J-330X	MG RESISTOR		
	R 532	NRSA63J-0R0X	MG RESISTOR		
	R 533	NRSA63J-330X	MG RESISTOR		
	R 534	NRSA63J-330X	MG RESISTOR		
	R 535	NRSA63J-330X	MG RESISTOR		
	R 536	NRSA63J-330X	MG RESISTOR		
	R 537	NRSA63J-330X	MG RESISTOR		
	R 538	NRSA63J-330X	MG RESISTOR		
	R 539	NRSA63J-330X	MG RESISTOR		
	R 540	NRSA63J-330X	MG RESISTOR		
	R 541	NRSA63J-0R0X	MG RESISTOR		
	R 542	NRSA63J-0R0X	MG RESISTOR		
	R 543	NRSA63J-0R0X	MG RESISTOR		
	R 544	NRSA63J-0R0X	MG RESISTOR		
	R 545	NRSA63J-472X	MG RESISTOR		
	R 546	NRSA63J-332X	MG RESISTOR		
	R 547	NRSA63J-222X	MG RESISTOR		
	R 548	NRSA63J-332X	MG RESISTOR		
	R 550	NRSA63J-0R0X	MG RESISTOR		
	R 554	NRSA63J-0R0X	MG RESISTOR		
	R 555	NRSA63J-0R0X	MG RESISTOR		
	R 557	NRSA63J-0R0X	MG RESISTOR		
	R 558	NRSA63J-102X	MG RESISTOR		
	R 559	NRSA63J-0R0X	MG RESISTOR		
	R 561	NRVA63D-221X	MMF RESISTOR		
	R 564	NRVA63D-152X	MG RESISTOR		
	R 565	NRVA63D-332X	MF RESISTOR		
	R 567	NRSA63J-0R0X	MG RESISTOR		
	R 568	NRVA63D-221X	MMF RESISTOR	CB OUT	
	R 569	NRVA63D-221X	MMF RESISTOR	CR OUT	

⚠	Item	Parts number	Parts name	Remarks	Area
	R 570	NRVA63D-221X	MMF RESISTOR		
	R 571	NRSA63J-100X	MG RESISTOR		
	R 572	NRSA63J-181X	MG RESISTOR		
	R 573	NRSA63J-181X	MG RESISTOR		
	R 574	NRSA63J-181X	MG RESISTOR		
	R 575	NRSA63J-181X	MG RESISTOR		
	R 576	NRSA63J-181X	MG RESISTOR		
	R 577	NRSA63J-181X	MG RESISTOR		
	R 578	NRSA63J-181X	MG RESISTOR		
	R 579	NRSA63J-181X	MG RESISTOR		
	R 580	NRSA63J-181X	MG RESISTOR		
	R 581	NRSA63J-101X	MG RESISTOR		
	R 582	NRSA63J-0R0X	MG RESISTOR		
	R 583	NRVA63D-471X	CMF RESISTOR		
	R 584	NRVA63D-103X	MF RESISTER		
	R 585	NRVA63D-471X	CMF RESISTOR		
	SP 1	PU59915-105	SPACER		
	X 371	NAX0277-002X	CRYSTAL		
	X 401	NAX0331-001X	C RESONATOR		

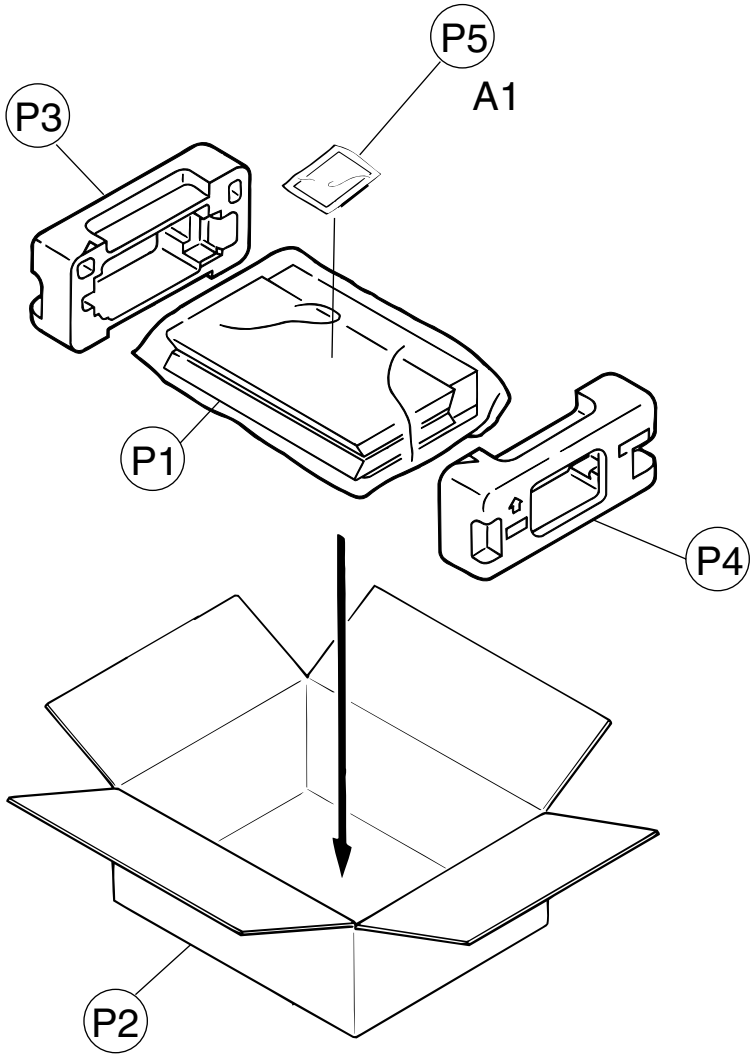
■ **Electrical parts list (Tuner board)** **Block No. 06**

⚠	Item	Parts number	Parts name	Remarks	Area
	AT101	QNB0014-001	ANT TERMINAL		
	C 101	NCB21HK-103X	C CAPACITOR		
	C 103	NCB21HK-223X	C CAPACITOR		
	C 105	NCB21HK-223X	C CAPACITOR		
	C 107	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 111	NCB21HK-473X	C CAPACITOR		
	C 112	NDC21HJ-120X	C CAPACITOR		
	C 113	QCSB1HJ-120Y	C CAPACITOR	12PF 5% 50V	
	C 121	NDC21HJ-120X	C CAPACITOR		
	C 122	NDC21HJ-120X	C CAPACITOR		
	C 123	NCB21HK-473X	C CAPACITOR		
	C 126	NCS21HJ-101X	C CAPACITOR		
	C 128	QENC1HM-474Z	NP E.CAPACITOR	.47MF 20% 50V	
	C 129	NCB21HK-102X	C CAPACITOR		
	C 130	QEKC1AM-107Z	E.CAPACITOR	100MF 20% 10V	
	C 133	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 134	NCB21HK-222X	C CAPACITOR		
	C 135	NCB21HK-223X	C CAPACITOR		
	C 136	QEKC1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	
	C 137	NCS21HJ-680X	C CAPACITOR		
	C 139	NCB21HK-393X	C CAPACITOR		
	C 140	NCB21HK-393X	C CAPACITOR		
	C 141	NCB21HK-473X	C CAPACITOR		
	C 143	NCB21HK-223X	C CAPACITOR		
	C 144	NCB21HK-473X	C CAPACITOR		
	C 146	QEKC1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	
	C 147	QEKC1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	
	C 148	QEKC1HM-224Z	E.CAPACITOR	.22MF 20% 50V	
	C 149	QEKC1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	
	C 150	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 156	QDGB1HK-102Y	C CAPACITOR		
	C 157	NCB21HK-473X	C CAPACITOR		
	C 158	QEKC1CM-226Z	E CAPACITOR	22MF 20% 16V	
	C 161	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
	C 162	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
	C 163	NCB21HK-223X	C CAPACITOR		
	C 164	NCB21HK-473X	C CAPACITOR		
	C 168	QEKC1HM-105Z	E.CAPACITOR	1.0MF 20% 50V	
	C 184	QEKC1CM-107Z	E.CAPACITOR	100MF 20% 16V	
	C 185	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
	C 186	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
	C 191	NCS21HJ-820X	C CAPACITOR		
	C 192	NCS21HJ-470X	C CAPACITOR		
	C 193	NCB21HK-561X	C CAPACITOR		
	C 194	NCB21HK-104X	C CAPACITOR		
	C 195	NCB21HK-331X	C.CAPA. C.M		
	C 196	QEKC1HM-225Z	E.CAPACITOR	2.2MF 20% 50V	
	C 197	NCB21HK-473X	C CAPACITOR		
	C 199	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
	CF101	QAX0285-001Z	C.FILTER		
	CF102	QAX0285-001Z	C.FILTER		
	CF103	QAX0519-001Z	C FILTER		
	CN111	QGB2501K2-12	CONECTOR		
	CN112	QGB2501K1-04	CONNECTOR		
	D 121	1SS133-T2	SI DIODE		
	D 123	1SS133-T2	SI DIODE		
	D 129	1SS133-T2	SI DIODE		
	D 131	1SS133-T2	SI DIODE		
	IC102	LA1838	IC		
	IC121	LC72136N	IC		
	IC191	SAA6588	IC(RDS)		
	L 112	QQL231K-2R7Y	INDUCTOR		
	Q 102	2SC535/BC/-T	TRANSISTOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	Q 103	2SC461/BC/-T	TRANSISTOR		
	Q 111	KTC3199/GL/-T	TRANSISTOR		
	Q 112	KTC3199/GL/-T	TRANSISTOR		
	Q 113	DTA114YKA-X	TRANSISTOR		
	Q 121	KRA103M-T	TRANSISTOR *		
	R 103	NRSA02J-101X	MG RESISTOR		
	R 104	NRSA02J-272X	MG RESISTOR		
	R 105	NRSA02J-391X	MG RESISTOR		
	R 106	NRSA02J-102X	MG RESISTOR		
	R 107	NRSA02J-561X	MG RESISTOR		
	R 108	NRSA02J-332X	MG RESISTOR		
	R 109	NRSA02J-221X	MG RESISTOR		
	R 111	NRSA02J-472X	MG RESISTOR		
	R 112	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 114	NRSA02J-122X	MG RESISTOR		
	R 115	NRSA02J-104X	MG RESISTOR		
	R 119	NRSA02J-103X	MG RESISTOR		
	R 122	NRSA02J-472X	MG RESISTOR		
	R 124	NRSA02J-222X	MG RESISTOR		
	R 126	NRSA02J-562X	MG RESISTOR		
	R 127	NRSA02J-822X	MG RESISTOR		
	R 128	NRSA02J-472X	MG RESISTOR		
	R 129	NRSA02J-222X	MG RESISTOR		
	R 130	QRZ9005-680X	F.RESISTOR	68 1/4W	
	R 132	NRSA02J-393X	MG RESISTOR		
	R 133	NRSA02J-392X	MG RESISTOR		
	R 134	NRSA02J-102X	MG RESISTOR		
	R 140	NRSA02J-563X	MG RESISTOR		
	R 141	NRSA02J-102X	MG RESISTOR		
	R 142	NRSA02J-470X	MG RESISTOR		
	R 143	NRSA02J-562X	MG RESISTOR		
	R 144	NRSA02J-332X	MG RESISTOR		
	R 145	NRSA02J-103X	MG RESISTOR		
	R 146	NRSA02J-472X	MG RESISTOR		
	R 147	NRSA02J-332X	MG RESISTOR		
	R 150	NRSA02J-331X	MG RESISTOR		
	R 157	NRSA02J-272X	MG RESISTOR		
	R 158	NRSA02J-272X	MG RESISTOR		
	R 161	NRSA02J-102X	MG RESISTOR		
	R 162	NRSA02J-102X	MG RESISTOR		
	R 182	NRSA02J-103X	MG RESISTOR		
	R 183	NRSA02J-103X	MG RESISTOR		
	R 184	NRSA02J-103X	MG RESISTOR		
	R 191	NRSA02J-102X	MG RESISTOR		
	R 192	NRSA02J-474X	MG RESISTOR		
	R 193	NRSA02J-103X	MG RESISTOR		
	R 194	NRSA02J-103X	MG RESISTOR		
	RF101	QAU0119-001	FRONT END	FOR FTZ	
	T 111	QQR0871-001	COIL BLOCK		
	T 142	QQR0973-001	IFT		
	X 121	QAX0402-001	CRYSTAL		
	X 191	QAX0263-001Z	CRYSTAL		

Packing materials and accessories parts list

Block No. M 3 M M
Block No. M 4 M M



■ Parts list (Packing)

Block No. M3MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	QPC06005515P	POLY BAG	1	FOR SET	
	P 2	LV30580-029A	PACKING CASE	1		EE
		LV30580-028A	PACKING CASE	1		B,E,EN
	P 3	LV20651-001A	PACKING PAD(L)	1		
	P 4	LV20652-001A	PACKING PAD(R)	1		
	P 5	QPA01702503P	POLY BAG	1	FOR W.CARD	

■ Parts list (Accessories)

Block No. M4MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	BT-54008-2	WARRANTY CARD	1		B,E,EN
		BT-54012-1	WARRANTY CARD	1		EE

PARTS LIST

[SP-THA10]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

B ---------- U.K.
E ---------- Continental Europe
EN ---------- Northern Europe
EE ---------- Russian Federation

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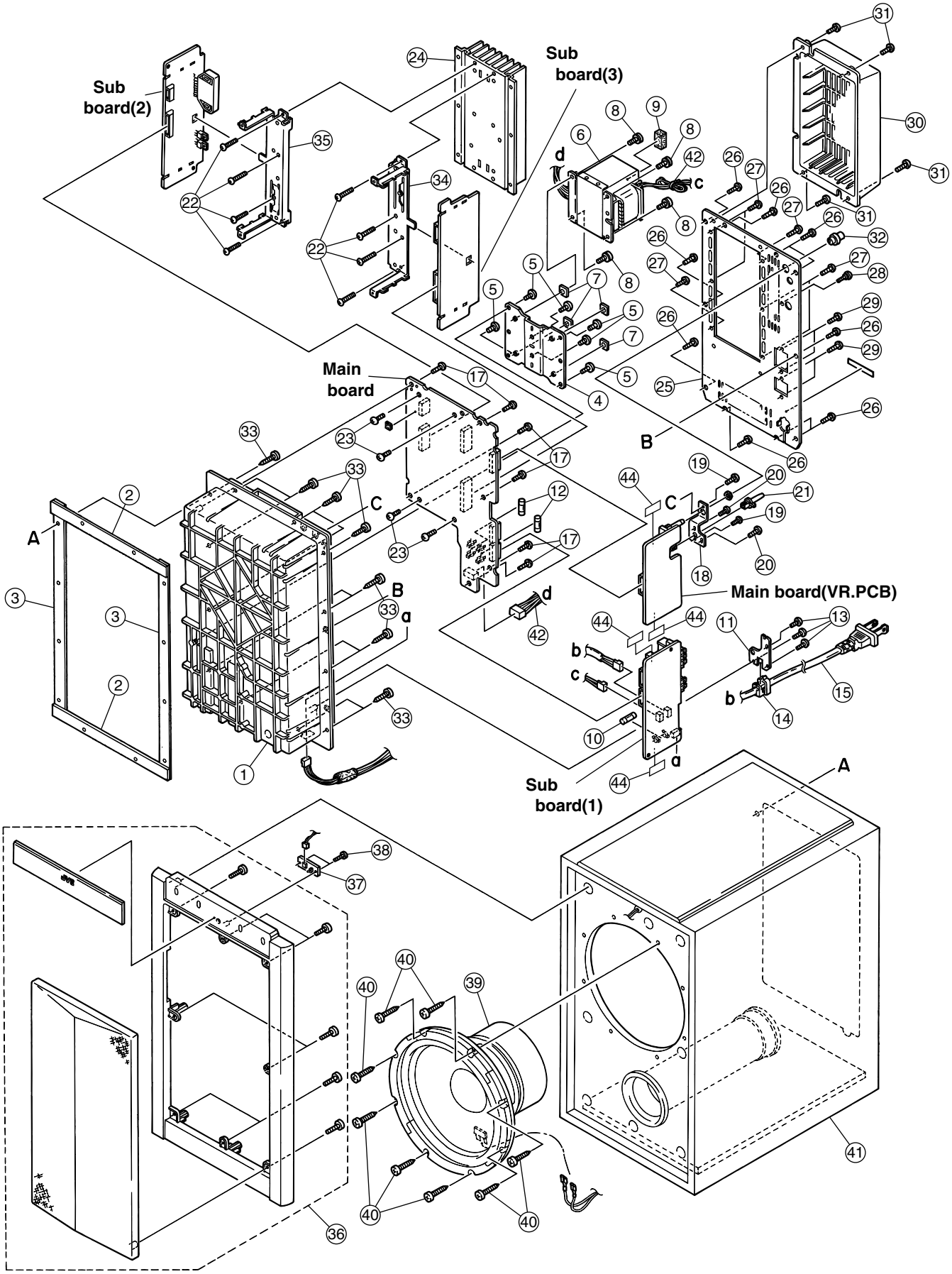
Packing materials and accessories parts list ---------- 3-34

Exploded view of general assembly and parts list (SP-THA10)

Block No. M 5 M M



■ Parts list (Speaker assembly)

Block No. M5MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	LV10337-001A	MOLD BASE	1		
	2	LV30225-066A	SPACER	2		
	3	LV30225-067A	SPACER	2		
	4	LV31723-001A	TRANS BRACKET	1		
	5	QYSBSF4008Z	SCREW	6	FOR TRANS BKT	
⚠	6	QQT0297-003	P.TRANS	1		
	7	E406309-002	SPACER	4		
	8	QYSDSTL4010E	SPECIAL SCREW	4		
	9	LV30225-078A	SPACER	1		
⚠	10	QMF51E2-2R5-J1	FUSE	1	F403	
	11	LV41686-001A	AC BRACKET	1		
⚠	12	QMF51A2-8R0J1	FUSE	2	F504,F505	
	13	QYSBSF3008Z	SCREW	3		
⚠	14	QHS3771-108	CORD STOPPER	1		
⚠	15	QMPN160-200-JD	POWER CORD	1	MOTHER TO H.BKT	B
⚠		QMPK190-200-JC	POWER CORD	1	MOTHER TO H.BKT	E,EE,EN
	17	QYSBSF3008Z	SCREW	6		
	18	LV31756-001A	VOLUME BRACKET	1		
	19	QYSBSF3008Z	SCREW	2	FOR BOLUME BKT	
	20	QYSBST3006Z	T.SCREW	2	FOR PUSH SW	
	21	E407321-002SM	PUSH BUTTON	1		
	22	QYSBSG3016Z	T.SCREW	8	FOR TRTO H/S	
	23	QYSBSG3008E	T.SCREW	4	MOTHER TO H/SBK	
⚠	24	LV20656-001A	HEAT SINK	1		
	25	LV20654-005A	REAR PANEL	1		B,E,EN
		LV20654-006A	REAR PANEL	1		EE
	26	QYSDSF3008M	SCREW	10	TO MOLD BASE	
	27	QYSBSGY3008E	SPECIAL SCREW	6	FOR H/S	
	28	E73562-003	SPECIAL SCREW	1	DIN.REAR	
	29	QYSBSGY3008E	SPECIAL SCREW	4	FOR SPK	
	30	LV20655-001A	H.S.COVER	1		
	31	QYSBSG3008M	T.SCREW	4		
	32	LV30734-002A	KNOB	1		
	33	QYSDSA4020M	TAP SCREW	12		
	34	LV31722-003A	P.TR HOLDER	1		
	35	LV31722-002A	P.TR HOLDER	1		
	36	AA000017-01	SPEAKER NET	1		
	37	6600007411	CIR BOARD ASSY	1		
	38	7004690801	TAPPING SCREW	2		
	39	CR25000501	SPEAKER	1		
	40	7005942502	SCREW	8		
	41	AA000016-02	SPEAKER CABINET	1		
	42	QZW0004-001	WIRE CLAMP	2	FOR TRANS BKT	
	43	LV30225-093A	SPACER	2		
	44	LV30225-094A	SPACER	4		

Electrical parts list

■ **Electrical parts list (Main board)** **Block No. 07**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 100	QTE1H06-475Z	E CAPACITOR		
	C 101	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 102	QTE1H06-475Z	E CAPACITOR		
	C 103	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 104	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 105	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 106	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 107	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 108	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 109	QTE1H06-475Z	E CAPACITOR		
	C 110	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 111	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 112	QTE1H06-475Z	E CAPACITOR		
	C 113	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 114	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 115	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 116	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 118	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 119	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 120	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 121	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 122	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 123	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 124	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 125	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 126	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C 128	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 129	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 500	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 501	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 502	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 503	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 504	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 505	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 506	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 507	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 508	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 509	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 510	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 511	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 512	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 513	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 514	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 515	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 516	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 517	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 518	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 519	QETN1EM-476Z	E CAPACITOR	47MF 20% 25V	
	C 520	QEZ0223-478	E CAPACITER	4700MF	
	C 521	QEZ0223-478	E CAPACITER	4700MF	
	C 522	QETM1EM-688	E CAPACITOR	6800MF 20% 25V	
	C 523	QETM1EM-688	E CAPACITOR	6800MF 20% 25V	
	C 524	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V	
	C 525	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V	
	C 526	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V	
	C 527	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V	
	C 528	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V	
	C 529	QFLC2AJ-104Z	M CAPACITOR	.10MF 5% 100V	
	C 530	QETN1CM-227Z	E CAPACITOR	220MF 20% 16V	
	C 531	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 532	QETN1EM-106Z	E CAPACITOR	10MF 20% 25V	
	C 533	QETN1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 550	QETN1HM-335Z	E CAPACITOR	3.3MF 20% 50V	

⚠	Item	Parts number	Parts name	Remarks	Area
	C 551	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 552	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 553	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 554	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C 555	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C 556	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C 557	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C 558	QETN1HM-226Z	E CAPACITOR	22MF 20% 50V	
	CN101	QGB2510K2-12	CONNECTOR		
	CN104	QGA3901C1-05	5P CONNECTOR		
	CN201	QGB2510J1-12	CONNECTOR		
	CN202	QGB2510J1-06	CONNECTOR		
	CN203	QGB2510J1-14	CONNECTOR		
	CN205	EMV7163-020	CONNECTOR		
	CN206	QGB2510J1-14	CONNECTOR		
	CN210	QGB2510J1-10	CONNECTOR		
	CN211	QGB2510J1-12	CONNECTOR		
	D 500	1SS133-T2	SI DIODE		
	D 501	1SS133-T2	SI DIODE		
	D 502	MTZJ5.1C-T2	ZENER DIODE		
	D 503	1SS133-T2	SI DIODE		
	D 504	1SS133-T2	SI DIODE		
	D 505	1SS133-T2	SI DIODE		
	D 506	MTZJ30C-T2	ZENER DIODE		
	D 508	MTZJ5.1B-T2	ZENER DIODE		
	D 509	MTZJ12C-T2	ZENER DIODE		
	D 510	MTZJ12C-T2	ZENER DIODE		
⚠	D 511	1N5402M-20	DIODE		
⚠	D 512	1N5402M-20	DIODE		
⚠	D 513	1N5402M-20	DIODE		
⚠	D 514	1N5402M-20	DIODE		
⚠	D 515	6A20G-E4	DIODE		
⚠	D 516	6A20G-E4	DIODE		
⚠	D 517	6A20G-E4	DIODE		
⚠	D 518	6A20G-E4	DIODE		
	D 519	1SS133-T2	SI DIODE		
	D 520	1SS133-T2	SI DIODE		
	D 521	1SS133-T2	SI DIODE		
	D 522	1SS133-T2	SI DIODE		
	D 523	MTZJ15C-T2	Z DIODE		
	D 524	MTZJ6.2B-T2	ZENER DIODE		
	D 525	MTZJ6.2B-T2	ZENER DIODE		
	D 526	MTZJ15C-T2	Z DIODE		
	D 527	1SS133-T2	SI DIODE		
	D 528	1SS133-T2	SI DIODE		
	D 530	1SS133-T2	SI DIODE		
	D 531	1SS133-T2	SI DIODE		
	D 532	MTZJ30C-T2	ZENER DIODE		
	D 533	MTZJ6.2B-T2	ZENER DIODE		
	D 534	1SS133-T2	SI DIODE		
	D 535	MTZJ15C-T2	Z DIODE		
	D 536	1SS133-T2	SI DIODE		
	IC100	BA3121	IC		
	IC101	BA3121	IC		
	IC102	BA3121	IC		
	IC103	BA15218N	IC		
	IC108	BA15218N	IC		
	IC109	BA15218N	IC		
	IC110	BA15218N	IC		
	J 100	QND0079-001	DIN CONNECTOR		
	K 100	QQR0786-001Z	INDUCTOR		
	K 101	QQR0786-001Z	INDUCTOR		
	Q 500	DTA144ESA-T	DIGITAL.TR TAPE		

■ **Electrical parts list (Main board)** **Block No. 07**

⚠	Item	Parts number	Parts name	Remarks	Area
	Q 501	DTC114ESA-T	DIGITAL.TR TAPE		
	Q 502	KTA1267/YG/-T	TRANSISTOR		
	Q 503	DTC114ESA-T	DIGITAL.TR TAPE		
	Q 504	KTC3199/GL/-T	TRANSISTOR		
	Q 505	DTC114ESA-T	DIGITAL.TR TAPE		
⚠	Q 506	2SD2037/EF/-T	TRANSISTOR		
⚠	Q 507	2SA1359/OY/	TRANSISTOR		
	Q 508	KTC3199/GL/-T	TRANSISTOR		
	Q 509	KTC3199/GL/-T	TRANSISTOR		
	Q 510	DTA114ESA-T	DIGITAL.TR TAPE		
	Q 511	KTC3199/GL/-T	TRANSISTOR		
	Q 512	KTC3199/GL/-T	TRANSISTOR		
	Q 513	DTC144ESA-T	D.TRANSISTOR		
	Q 514	DTC115ESA-T	D.TRANSISTOR		
	Q 515	KTC3199/GL/-T	TRANSISTOR		
	Q 516	KTA1267/YG/-T	TRANSISTOR		
	Q 517	KTC3199/GL/-T	TRANSISTOR		
	Q 518	DTA114TSA-T	D.TRANSISTOR		
	Q 519	DTA114TSA-T	D.TRANSISTOR		
	Q 520	2SK105/EF/-T	TRANSISTOR(FET)		
	Q 521	2SK105/EF/-T	TRANSISTOR(FET)		
	Q 522	KTC3199/GL/-T	TRANSISTOR		
	Q 523	DTA144ESA-T	DIGITAL.TR TAPE		
	R 100	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 102	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 104	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 106	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 108	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 110	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 112	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 113	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 114	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 115	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 116	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 118	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 119	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 121	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 122	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 123	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 124	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 130	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 132	QRE141J-123Y	C RESISTOR	12K 5% 1/4W	
	R 133	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 134	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 135	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 136	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 137	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 138	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 139	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 500	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R 501	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 502	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 504	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 505	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R 506	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 507	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R 508	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 509	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 510	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 511	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R 512	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 513	QRE141J-392Y	C RESISTOR	3.9K 5% 1/4W	
	R 514	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R 515	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 516	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
⚠	R 517	QRZ9005-100X	F.RESISTOR	10 1/4W	
	R 518	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 519	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
⚠	R 520	QRZ9005-100X	F.RESISTOR	10 1/4W	
	R 521	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 522	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 523	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 524	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 525	QRL012J-271	UNF OMF.RES	270 5% 1/1W	
	R 526	QRE141J-122Y	C RESISTOR	1.2K 5% 1/4W	
	R 527	QRE141J-331Y	C RESISTOR	330 5% 1/4W	
	R 528	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 529	QRE141J-753Y	C RESISTOR	75K 5% 1/4W	
	R 530	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 531	QRE141J-753Y	C RESISTOR	75K 5% 1/4W	
	R 532	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 533	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 534	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 535	QRE141J-224Y	C RESISTOR	220K 5% 1/4W	
⚠	R 536	QRZ9006-4R7X	F RESISTOR	4.7 1/4W	
	R 537	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 538	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 539	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 540	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 541	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 542	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 543	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 544	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 545	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 546	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 547	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 548	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 549	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 550	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 551	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 552	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 553	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 554	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 555	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 556	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 557	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 558	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 559	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 560	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 561	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 562	QRE141J-101Y	C RESISTOR	100 5% 1/4W	
	R 563	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 564	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 565	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 566	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 567	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 568	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 570	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	S 100	QSW0834-001	PUSH SW		
	VR100	QVQ0021-B14	V.RES		
	Z 500	QNG0020-001Z	FUSE CLIP		
	Z 501	QNG0020-001Z	FUSE CLIP		
	Z 502	QNG0020-001Z	FUSE CLIP		
	Z 503	QNG0020-001Z	FUSE CLIP		

■ **Electrical parts list (Sub board)** **Block No. 08**

⚠	Item	Parts number	Parts name	Remarks	Area
	C 202	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	C 203	QFVF1HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 204	QFVF1HJ-184Z	TF CAPACITOR	.18MF 5% 50V	
	C 205	QFN31HJ-393Z	M CAPACITOR	.039MF 5% 50V	
	C 206	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 207	QFVF1HJ-103Z	F CAPACITOR	.010MF 5% 50V	
	C 208	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 209	QFN31HJ-471Z	M.CAPACITOR	470PF 5% 50V	
	C 210	QTE1H06-475Z	E CAPACITOR		
	C 211	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 212	QETN1HM-107Z	E CAPACITOR	100MF 20% 50V	
	C 213	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 214	QETN1HM-476Z	E CAPACITOR	47MF 20% 50V	
	C 215	QCS31HJ-3R0Z	C CAPACITOR	3.0PF 5% 50V	
	C 216	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 217	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 218	QFVF1HJ-224Z	TF CAPACITOR	.22MF 5% 50V	
	C 219	QFVF1HJ-224Z	TF CAPACITOR	.22MF 5% 50V	
	C 223	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C 225	QETN2AM-226Z	E CAPACITOR	22MF 20% 100V	
	C 226	QFN31HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 227	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C 228	QFVJ1HJ-103Z	TF CAPACITOR	.010MF 5% 50V	
	C 229	QFVJ1HJ-223Z	TF CAPACITOR	.022MF 5% 50V	
	C 230	QFVJ1HJ-223Z	TF CAPACITOR	.022MF 5% 50V	
	C 231	QFN31HJ-103Z	M CAPACITOR	.010MF 5% 50V	
	C 232	QETN1HM-475Z	E CAPACITOR	4.7MF 20% 50V	
	C 233	QFV61HJ-104Z	TF CAPACITOR	.10MF 5% 50V	
	C 300	QFN31HJ-471Z	M.CAPACITOR	470PF 5% 50V	
	C 301	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 302	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 303	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 304	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 305	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 306	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V	
	C 307	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 308	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 309	QETN1HM-106Z	E CAPACITOR	10MF 20% 50V	
	C 310	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 311	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 312	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 313	QETN1HM-225Z	E CAPACITOR	2.2MF 20% 50V	
	C 314	QFN31HJ-471Z	M.CAPACITOR	470PF 5% 50V	
	C 315	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V	
	C 316	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 317	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 319	QTE1H06-475Z	E CAPACITOR		
	C 320	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 321	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 322	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 323	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V	
	C 324	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 325	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 326	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 327	QETN1EM-107Z	E CAPACITOR	100MF 20% 25V	
	C 328	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 329	QTE1H06-475Z	E CAPACITOR		
	C 330	QFN31HJ-471Z	M.CAPACITOR	470PF 5% 50V	
	C 331	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 332	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V	
	C 333	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 334	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 336	QTE1H06-475Z	E CAPACITOR		

⚠	Item	Parts number	Parts name	Remarks	Area
	C 337	QCBB1HK-221Y	C CAPACITOR	220PF 10% 50V	
	C 338	QCSB1HK-3R3Y	C CAPACITOR	3.3PF 10% 50V	
	C 339	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 340	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 350	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 351	QETN1EM-226Z	E CAPACITOR	22MF 20% 25V	
	C 352	QFN31HJ-392Z	M.CAPACITOR	3900PF 5% 50V	
	C 353	QFN31HJ-392Z	M.CAPACITOR	3900PF 5% 50V	
⚠	C 400	QFZ9051-103	MM CAPACITOR	.010MF	
	C 402	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 403	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 404	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 405	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 406	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 407	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 408	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 409	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 410	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 411	QFLM1HJ-104Z	M CAPACITOR	.10MF 5% 50V	
	C 412	QETN1HM-105Z	E CAPACITOR	1.0MF 20% 50V	
	CN102	QGB2510K2-06	CONNECTOR		
	CN103	QGB2510K2-14	CONNECTOR		
	CN105	EMV5163-020R	SOCKET		
	CN106	QGB2510K2-14	CONNECTOR		
	CN107	QGA7901C1-02	CONNECTOR		
	CN108	QGA7901C1-02	CONNECTOR		
	CN109	QGA3901F2-04	CONNECTOR		
	CN110	QGB2510K2-10	CONNECTOR		
	CN111	QGB2510K2-12	CONNECTOR		
	D 202	1SS133-T2	SI DIODE		
	D 203	1SS133-T2	SI DIODE		
⚠	D 204	1N5402M-20	DIODE		
	D 205	MTZJ15C-T2	Z DIODE		
	D 206	MTZJ6.2B-T2	ZENER DIODE		
	D 207	1SS133-T2	SI DIODE		
	D 208	SLR-325MG-T	LED I M		
	D 209	SLR-325MG-T	LED I M		
	D 210	1SS133-T2	SI DIODE		
	D 211	1SS133-T2	SI DIODE		
	D 212	MTZJ6.2B-T2	ZENER DIODE		
	D 214	MTZJ15C-T2	Z DIODE		
⚠	D 215	1N5402M-20	DIODE		
	D 216	1SS133-T2	SI DIODE		
	D 217	MTZJ6.2B-T2	ZENER DIODE		
	D 218	1SS133-T2	SI DIODE		
	D 219	1SS133-T2	SI DIODE		
	D 300	1SS133-T2	SI DIODE		
	D 301	1SS133-T2	SI DIODE		
	D 302	1SS133-T2	SI DIODE		
	D 303	1SS133-T2	SI DIODE		
	D 304	1SS133-T2	SI DIODE		
	D 400	1SS133-T2	SI DIODE		
	D 401	1SR35-400A-T5	DIODE I/M		
	IC104	BA15218N	IC		
⚠	IC105	STK404-130	IC		
⚠	IC106	STK402-030	IC		
⚠	IC107	STK402-230	IC		
	IC201	BA15218N	IC		
	IC202	BA15218N	IC		
	J 101	QNB0065-002	SPK TERMINAL		
	J 102	QNB0070-002	SPK TERMINAL		
	L 200	QQLZ003-1R0	INDUCTOR		
	L 300	QQLZ003-1R0	INDUCTOR		

■ **Electrical parts list (Sub board)** **Block No. 08**

⚠	Item	Parts number	Parts name	Remarks	Area
	L 301	QQLZ003-1R0	INDUCTOR		
	L 302	QQLZ003-1R0	INDUCTOR		
	L 303	QQLZ003-1R0	INDUCTOR		
	L 304	QQLZ003-1R0	INDUCTOR		
	LC400	QQR0797-002	INDUCTOR		
	LC401	QQR0797-002	INDUCTOR		
	LC402	QQLZ005-R45	INDUCTOR		
	LC403	QQLZ005-R45	INDUCTOR		
	LC404	QQLZ005-R45	INDUCTOR		
	MR200	QRZ0197-R22	EMIT.RESISTOR	1/1W	
	Q 202	2SA1038S/SE/-T	TRANSISTOR		
	Q 204	2SK2391	POW.MOS-FET		
	Q 205	DTA114TSA-T	D.TRANSISTOR		
	Q 206	2SC2389S/SE/-T	TRANSISTOR		
	Q 207	2SA1038S/SE/-T	TRANSISTOR		
	Q 208	2SK2391	POW.MOS-FET		
	Q 209	2SC2389S/SE/-T	TRANSISTOR		
	Q 210	2SK105/EF/-T	TRANSISTOR(FET)		
	Q 211	DTC114TSA-T	D.TRANSISTOR		
	Q 300	KTA1267/YG/-T	TRANSISTOR		
	Q 301	KTA1267/YG/-T	TRANSISTOR		
	Q 302	KTA1267/YG/-T	TRANSISTOR		
	Q 303	KTA1267/YG/-T	TRANSISTOR		
	Q 304	KTA1267/YG/-T	TRANSISTOR		
	R 200	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 201	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 208	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 209	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 210	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 211	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 212	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 213	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 214	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 215	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 216	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R 217	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
⚠	R 218	QRZ9015-221X	F.RESISTOR	220 1/0W	
⚠	R 219	QRZ9015-221X	F.RESISTOR	220 1/0W	
	R 220	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 221	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 222	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 223	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 224	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 225	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 226	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 227	QRE141J-4R7Y	C RESISTOR	4.7 5% 1/4W	
	R 230	QRE141J-471Y	C RESISTOR	470 5% 1/4W	
	R 231	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 235	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 236	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 237	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 238	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 239	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 240	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R 241	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 242	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 243	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 244	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 245	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 246	QRE141J-823Y	C RESISTOR	82K 5% 1/4W	
	R 247	QRE141J-394Y	C RESISTOR	390K 5% 1/4W	
	R 248	QRE141J-334Y	C RESISTOR	330K 5% 1/4W	
	R 249	QRE141J-475Y	C RESISTOR	4.7M 5% 1/4W	

⚠	Item	Parts number	Parts name	Remarks	Area
	R 250	QRE141J-475Y	C RESISTOR	4.7M 5% 1/4W	
	R 251	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 252	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 253	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 254	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 255	QRE141J-100Y	C RESISTOR	10 5% 1/4W	
	R 256	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 257	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 258	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 259	QRE141J-104Y	C RESISTOR	100K 5% 1/4W	
	R 260	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 261	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 262	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 263	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 264	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 265	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 266	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 267	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 268	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 269	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 270	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 271	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 272	QRE141J-472Y	C RESISTOR	4.7K 5% 1/4W	
	R 273	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 274	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 275	QRE141J-221Y	C RESISTOR	220 5% 1/4W	
	R 276	QRE141J-223Y	C RESISTOR	22K 5% 1/4W	
	R 277	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 300	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 301	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 302	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
⚠	R 303	QRZ9015-101X	F.RESISTOR	100 1/0W	
	R 304	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 305	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 306	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 307	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 308	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 309	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 310	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 311	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 312	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 313	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 314	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
⚠	R 315	QRZ9015-101X	F.RESISTOR	100 1/0W	
	R 316	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R 317	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 318	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 319	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 320	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 321	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 322	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 323	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 324	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 325	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 326	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 327	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
⚠	R 328	QRZ9015-101X	F.RESISTOR	100 1/0W	
	R 329	QRE141J-103Y	C RESISTOR	10K 5% 1/4W	
	R 330	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 331	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 332	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 333	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 334	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	

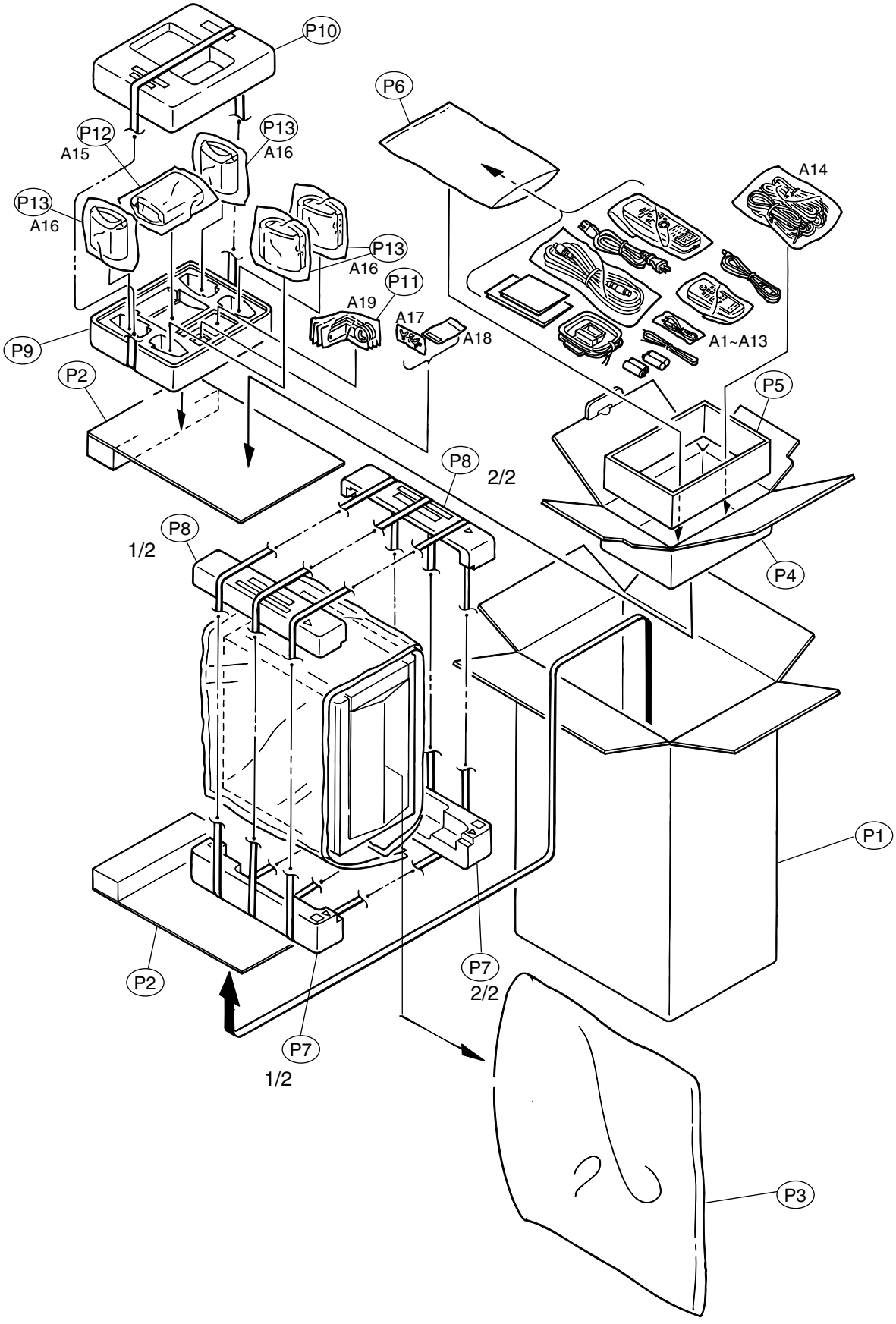
■ **Electrical parts list (Sub board)** **Block No. 08**

⚠	Item	Parts number	Parts name	Remarks	Area
	R 335	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 336	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 337	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 338	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 339	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
⚠	R 340	QRZ9015-101X	F.RESISTOR	100 1/0W	
	R 341	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R 342	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 343	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 344	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 345	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 346	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 347	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 348	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 349	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 350	QRE141J-332Y	C RESISTOR	3.3K 5% 1/4W	
	R 351	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 352	QRE141J-182Y	C RESISTOR	1.8K 5% 1/4W	
	R 353	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 354	QRT012J-R22	UNF.MF.RESISTOR	5% 1/1W	
	R 355	QRE141J-563Y	C RESISTOR	56K 5% 1/4W	
	R 356	QRE141J-102Y	C RESISTOR	1.0K 5% 1/4W	
	R 357	QRE141J-183Y	C RESISTOR	18K 5% 1/4W	
	R 358	QRE141J-473Y	C RESISTOR	47K 5% 1/4W	
	R 359	QRK126J-4R7X	C RESISTOR	4.7 5% 1/2W	
	R 360	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 370	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 371	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 372	QRE141J-162Y	C RESISTOR	1.6K 5% 1/4W	
	R 373	QRE141J-152Y	C RESISTOR	1.5K 5% 1/4W	
	R 374	QRE141J-162Y	C RESISTOR	1.6K 5% 1/4W	
	R 375	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 376	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 377	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R 378	QRE141J-222Y	C RESISTOR	2.2K 5% 1/4W	
	R 379	QRE141J-562Y	C RESISTOR	5.6K 5% 1/4W	
	R 400	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 401	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 402	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 403	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
	R 404	QRE141J-8R2Y	C RESISTOR	8.2 5% 1/4W	
⚠	RY400	QSK0055-001	RELAY		
	RY401	QSK0095-001	RELAY		
	RY402	QSK0095-001	RELAY		
	RY403	QSK0095-001	RELAY		
	Z 400	QNG0020-001Z	FUSE CLIP		
	Z 401	QNG0020-001Z	FUSE CLIP		

— MEMO —

Packing materials and accessories parts list

Block No. M 6 M M
Block No. M 7 M M



■ Parts list (Packing)

Block No. M6MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	LV32243-001A	CARTON	1		
	P 2	LV41665-001A	PROTECTOR	2		
	P 3	QPA10010005P	POLY BAG	1	FOR SPK	
	P 4	LV31968-001A	ACC.BOX	1		
	P 5	LV31983-001A	CARTON SHEET	1		
	P 6	QPA02504507P	POLY BAG	1	FOR ACC	EE
		QPA03004507P	POLY BAG	1	FOR ACC	B,E,EN
	P 7	8000042211	BOTTOM CUSHION	1		
	P 8	8000042201	TOP CUSHION	1		
	P 9	8000042111	BOTTOM CUSHION	1		
	P 10	8000042101	TOP CUSHION	1		
	P 11	8500035701	POLY BAG	4	FOR BKT	
	P 12	8500032771	POLY BAG	1	FOR SPK BOX	
	P 13	8500032761	POLY BAG	4	FOR SPK BOX	

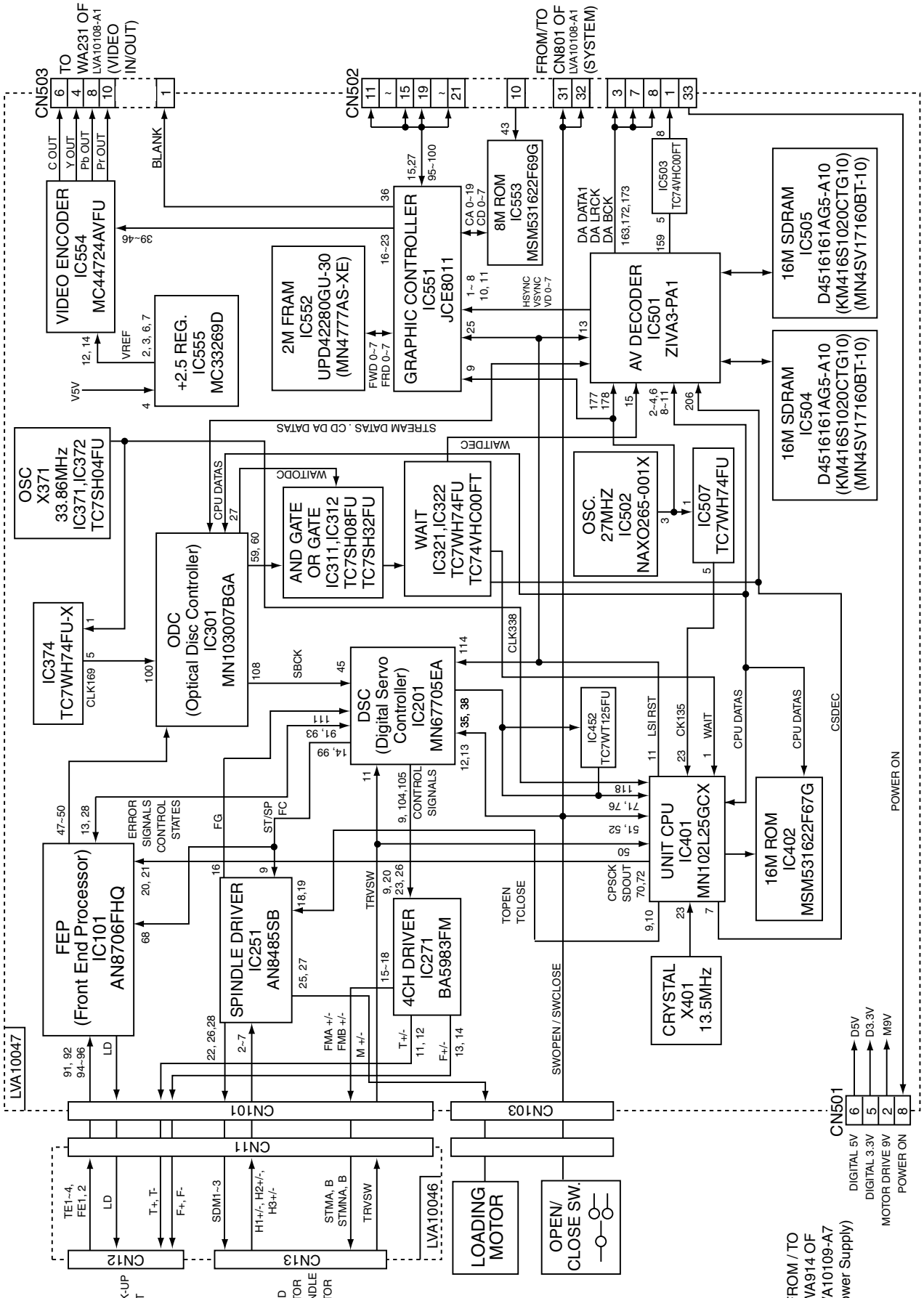
■ Parts list (Accessories)

Block No. M7MM

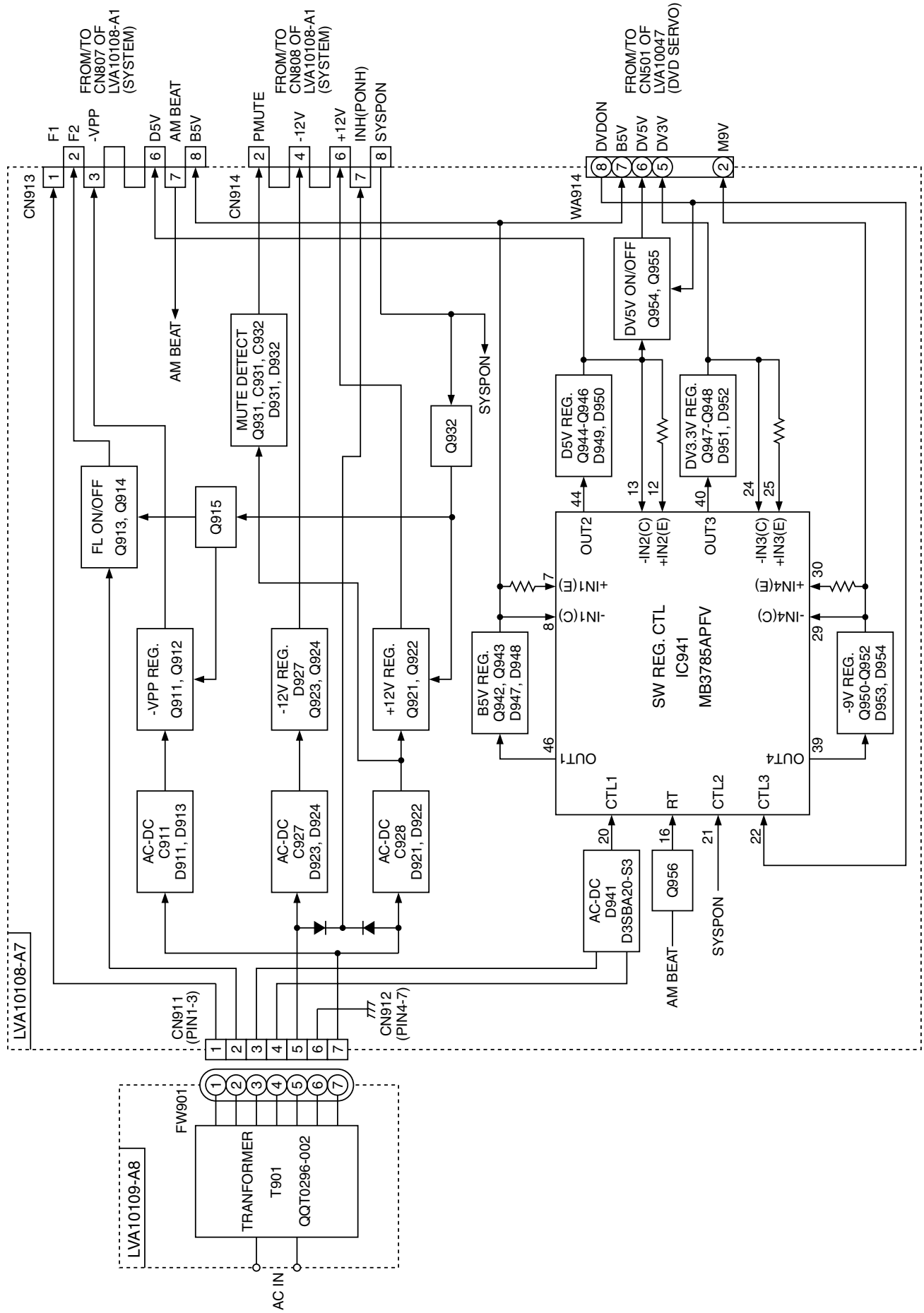
⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	LVT0516-003A	INST.BOOK	1	DAN	EN
		LVT0516-001A	INST.BOOK	1	ENG	B
		LVT0517-001A	INST.BOOK-2	1	ENG	B
		LVT0517-002A	INST.BOOK-2	1	SPA	E
		LVT0517-004A	INST.BOOK-2	1	RUS	EE
		LVT0516-002A	INST.BOOK	1	ENG,GER,FRE,DUT	E
		LVT0517-003A	INST.BOOK-2	1	SWE	EN
		LVT0516-002A	INST.BOOK	1	SPA,ITA	E
		LVT0516-003A	INST.BOOK	1	GER,FRE,SWE,FIN	EN
		LVT0517-007A	INST.BOOK-2	1	ITA	E
		LVT0517-008A	INST.BOOK-2	1	FIN	EN
		LVT0517-012A	INST.BOOK-2	1	DUT	E,EN
		LVT0517-011A	INST.BOOK-2	1	FRE	E,EN
		LVT0517-009A	INST.BOOK-2	1	DEN	EN
		LVT0517-010A	INST.BOOK-2	1	GER	E,EN
		LVT0516-004A	INST.BOOK	1	RUS	EE
	A 3	E43486-340A	SAFETY SHEET	1		B
	A 4	VNA3000-202	REGISTER CARD	1		B
⚠	A 5	QMP39F0-183E	POWER CORD	1		E,EE,EN
⚠		QMPP060-183-JD	POWER CORD	1		B
	A 6	QAM0239-002	SYSTEM CABLE	1		
	A 7	RM-STHA10R	W.LESS REMOCON	1		
	A 8	RM-STHA10EC	W.LESS REMOCON	1		
	A 9	----------	BATTERY	2		
	A 10	QAM0236-001	VIDEO CABLE	1		
	A 11	EWP805-001W	PLUG CORD ASSY	1		
	A 12	QAL0014-001	LOOP ANTENNA	1		
	A 13	EWP503-001C	ANTENNA WIRE	1		
	A 14	LV41663-002A	SPK CORD ASSY	1		
	A 15	SP-XCA10J	SPEAKER BOX	1		
	A 16	SP-XSA10J	SPEAKER BOX	4		
	A 17	7200035901	BOLT	4		
	A 18	8600005001	FOOT	1		
	A 19	6400017301	SUB BRACKET	4		

Block diagrams

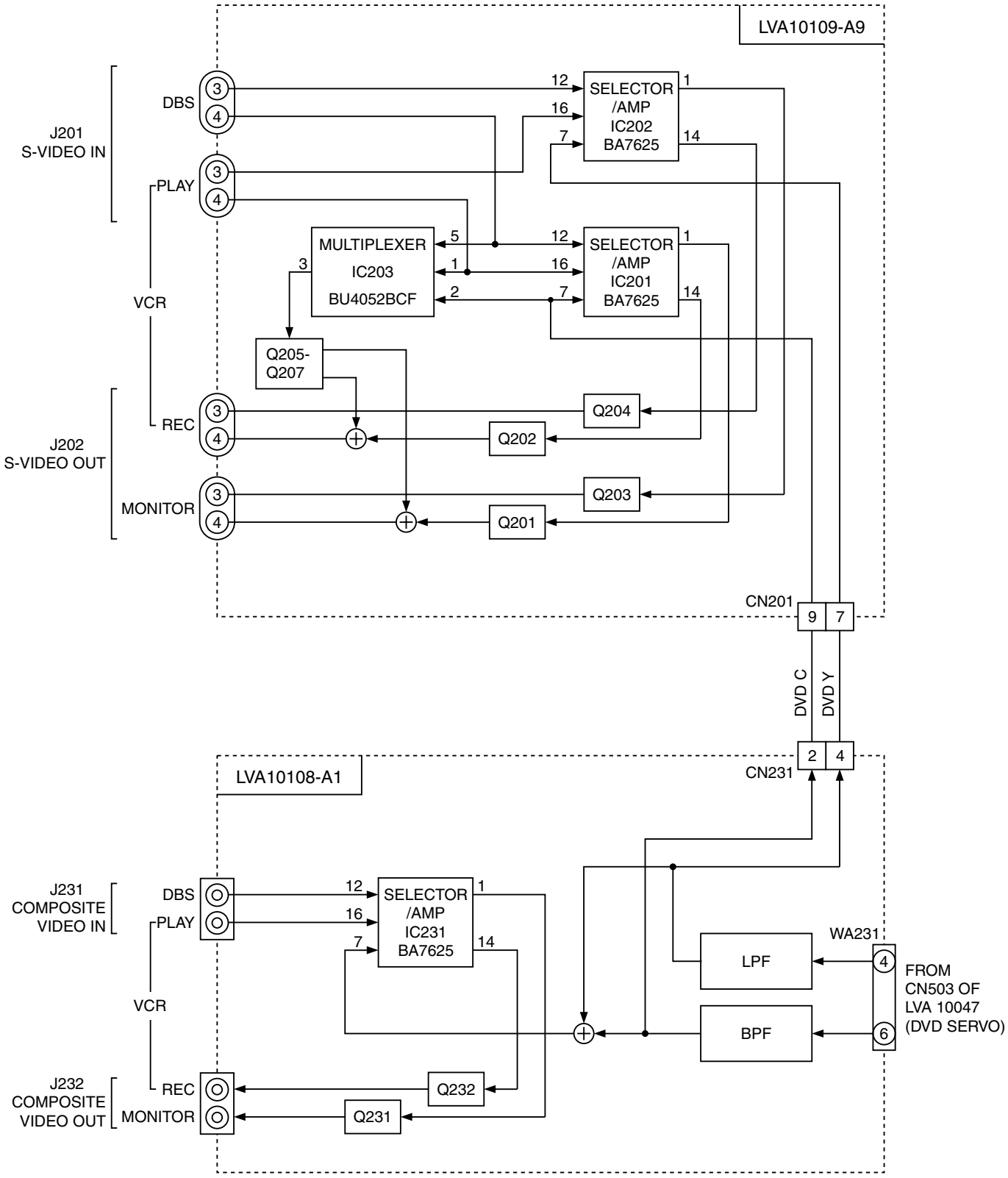
■ Block diagrams (DVD servo control Section)



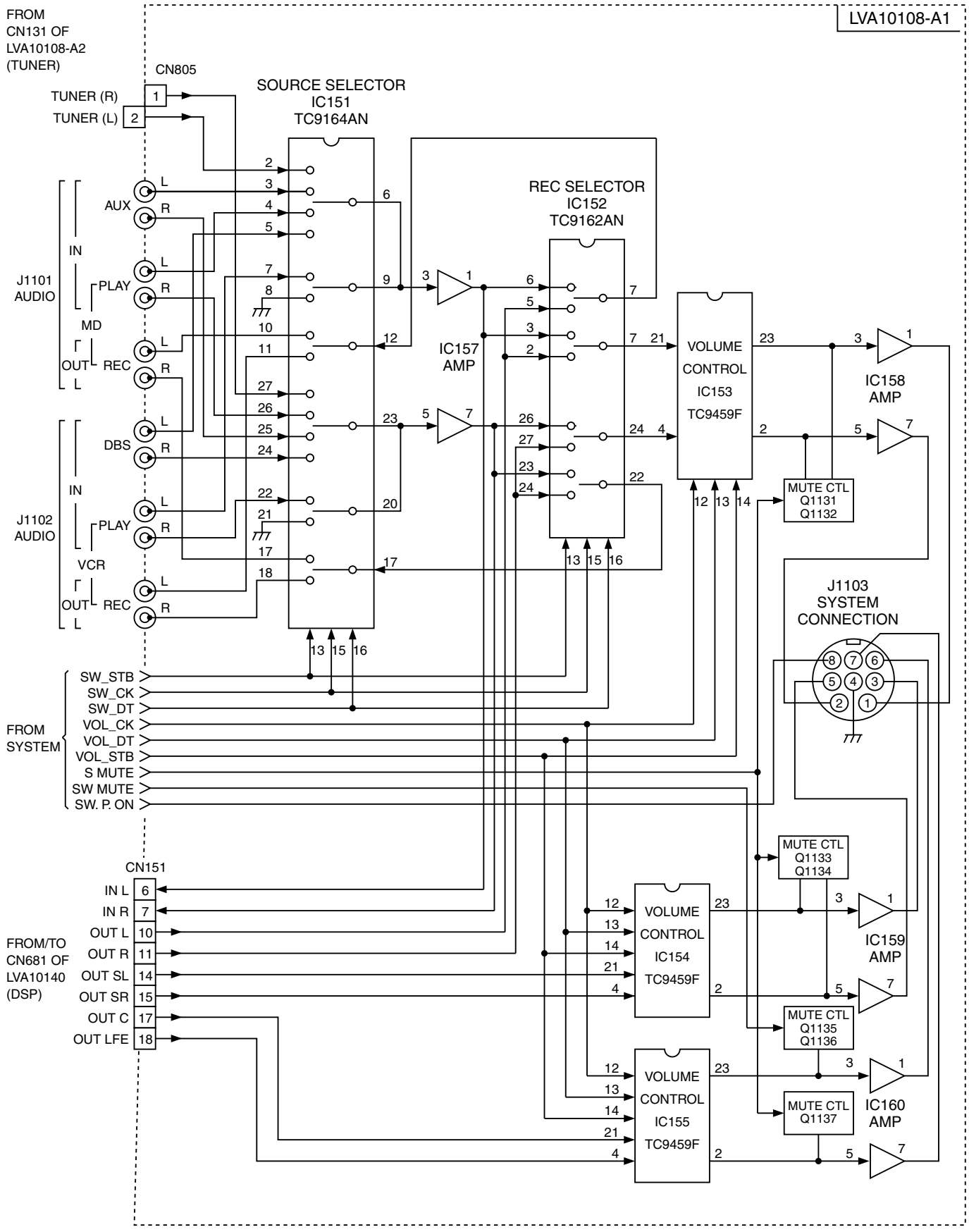
■ Block diagrams (Power supply Section)



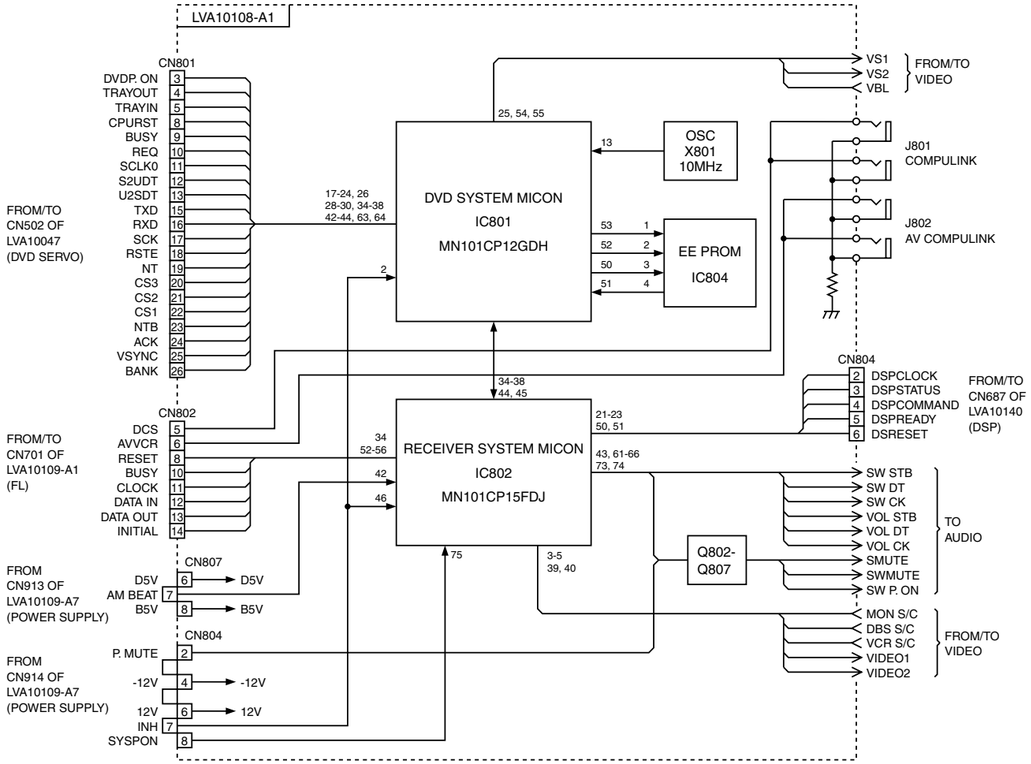
■ Block diagrams (Video out Section)



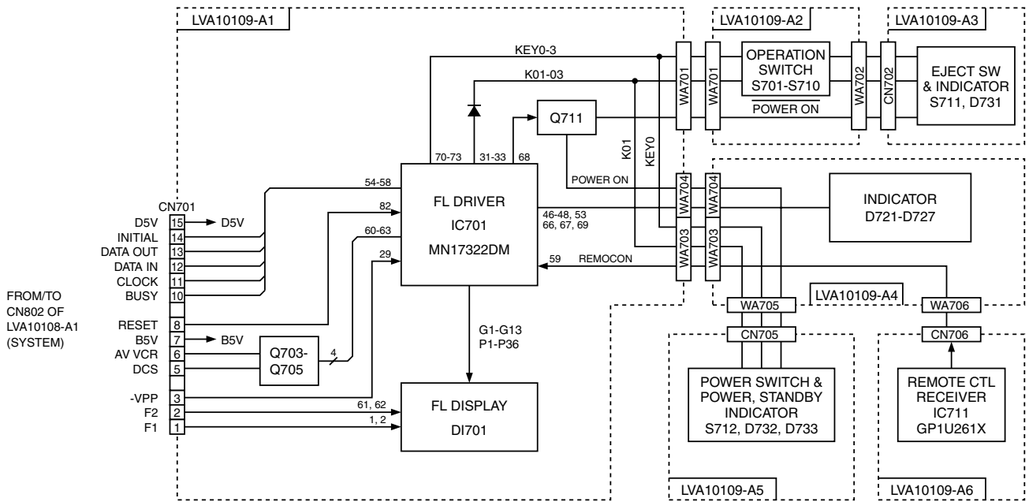
■ Block diagrams (Audio out section)



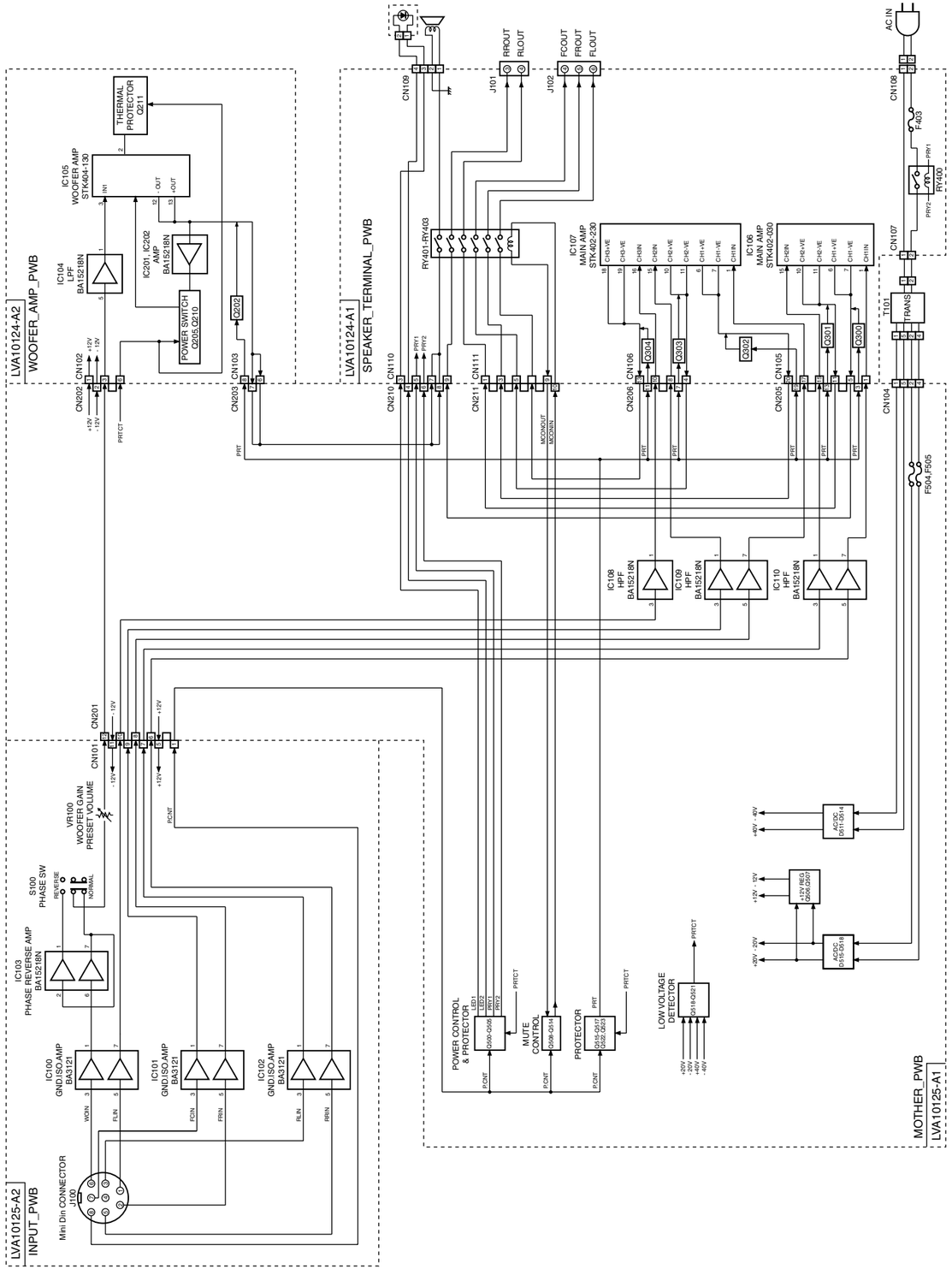
■ Block diagrams (System section)



■ Block diagrams (FL section)

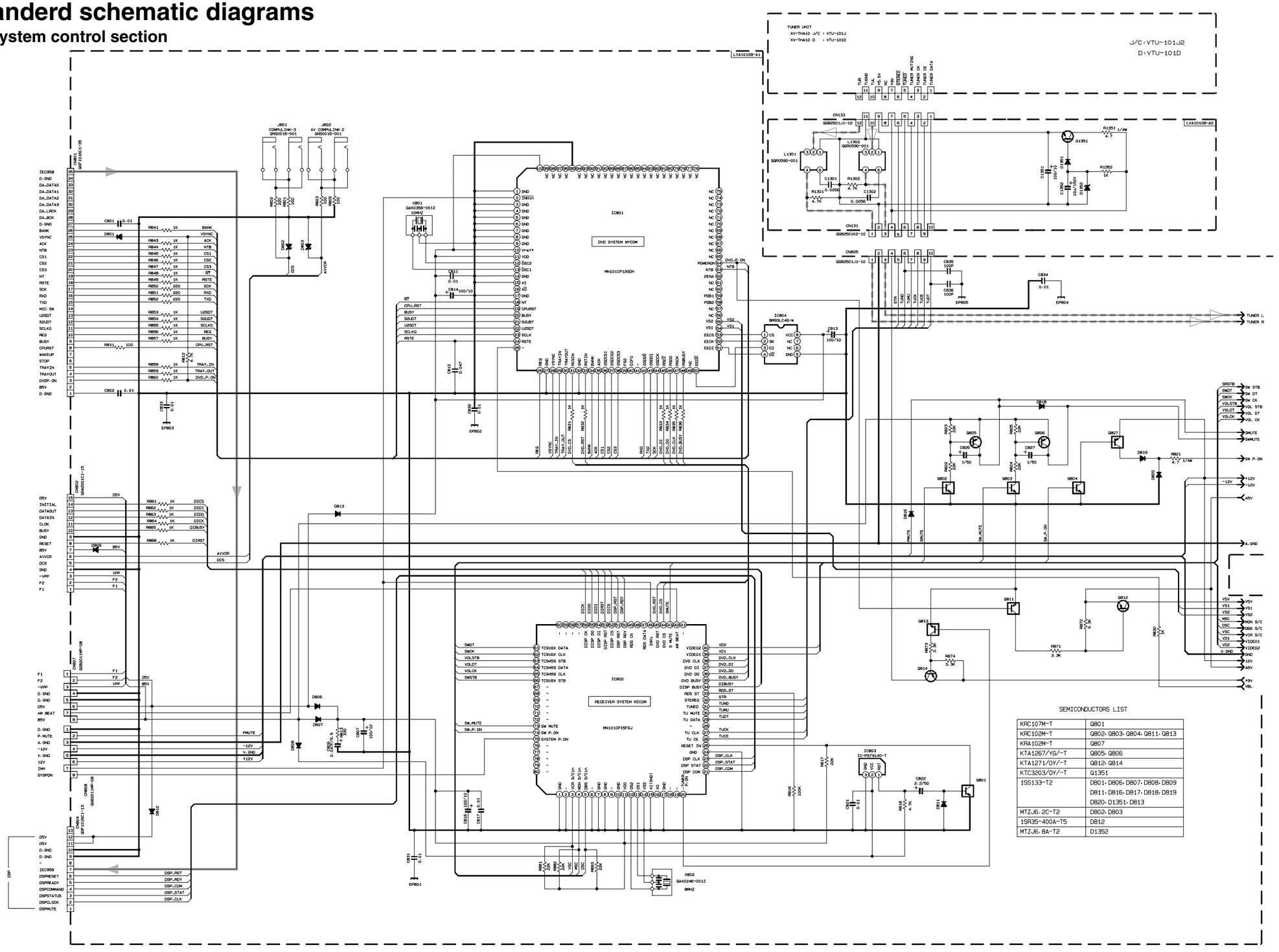


■ Block diagrams (SP-PW10 Powered subwoofer section)



Standerd schematic diagrams

■ System control section

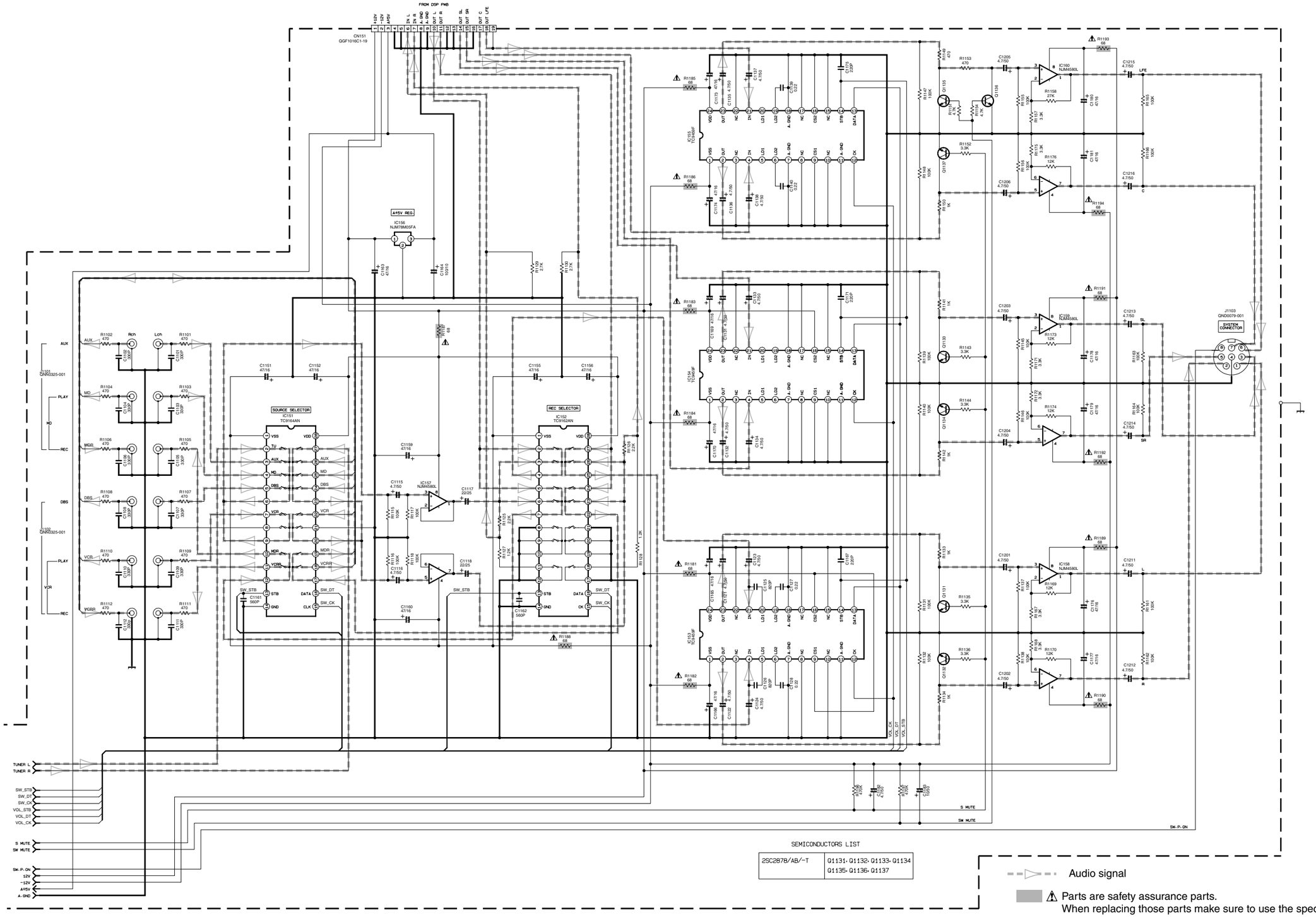


⚠ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

Digital (Audio) signal

Audio signal

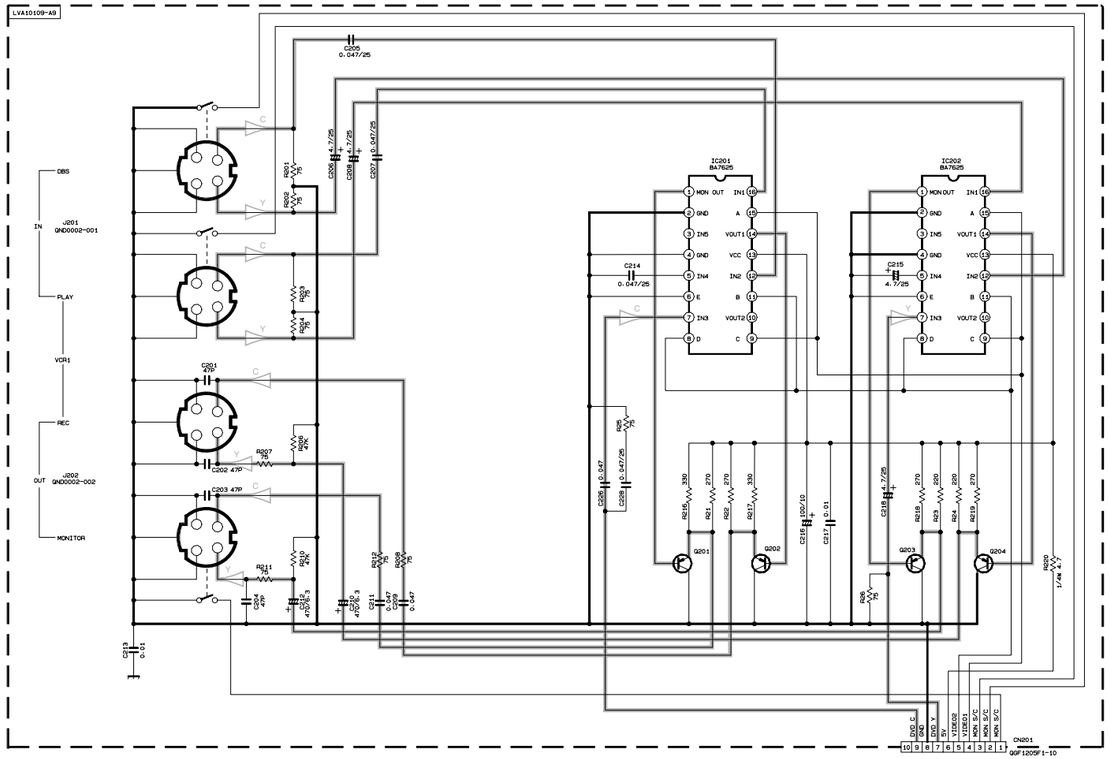
■ Audio input/output section

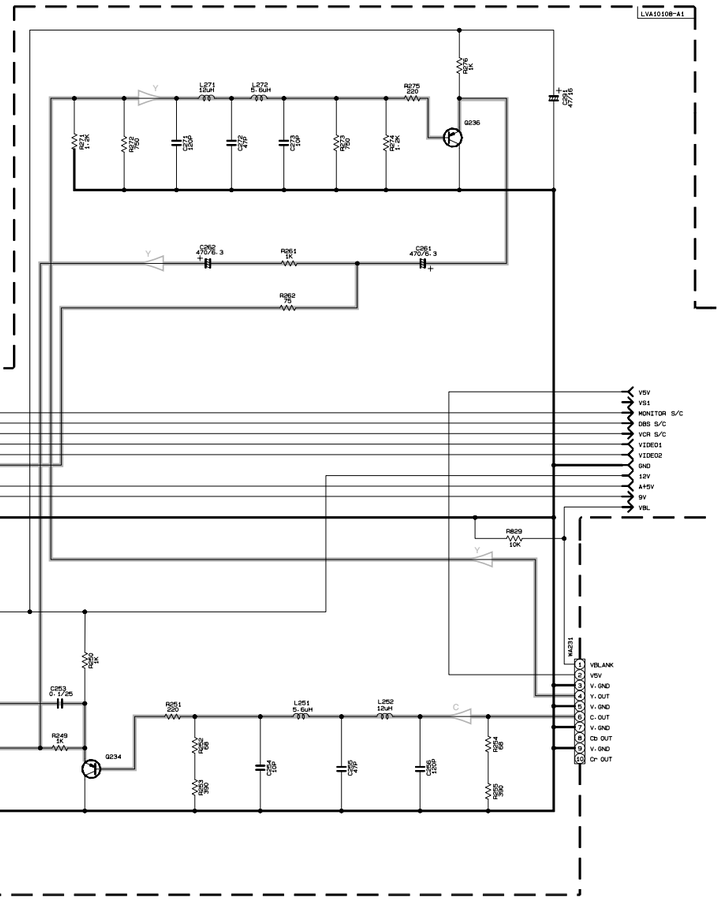


SEMICONDUCTORS LIST

2SC2878/AB/-T	Q1131, Q1132, Q1133, Q1134 Q1135, Q1136, Q1137

■ Video input/output section





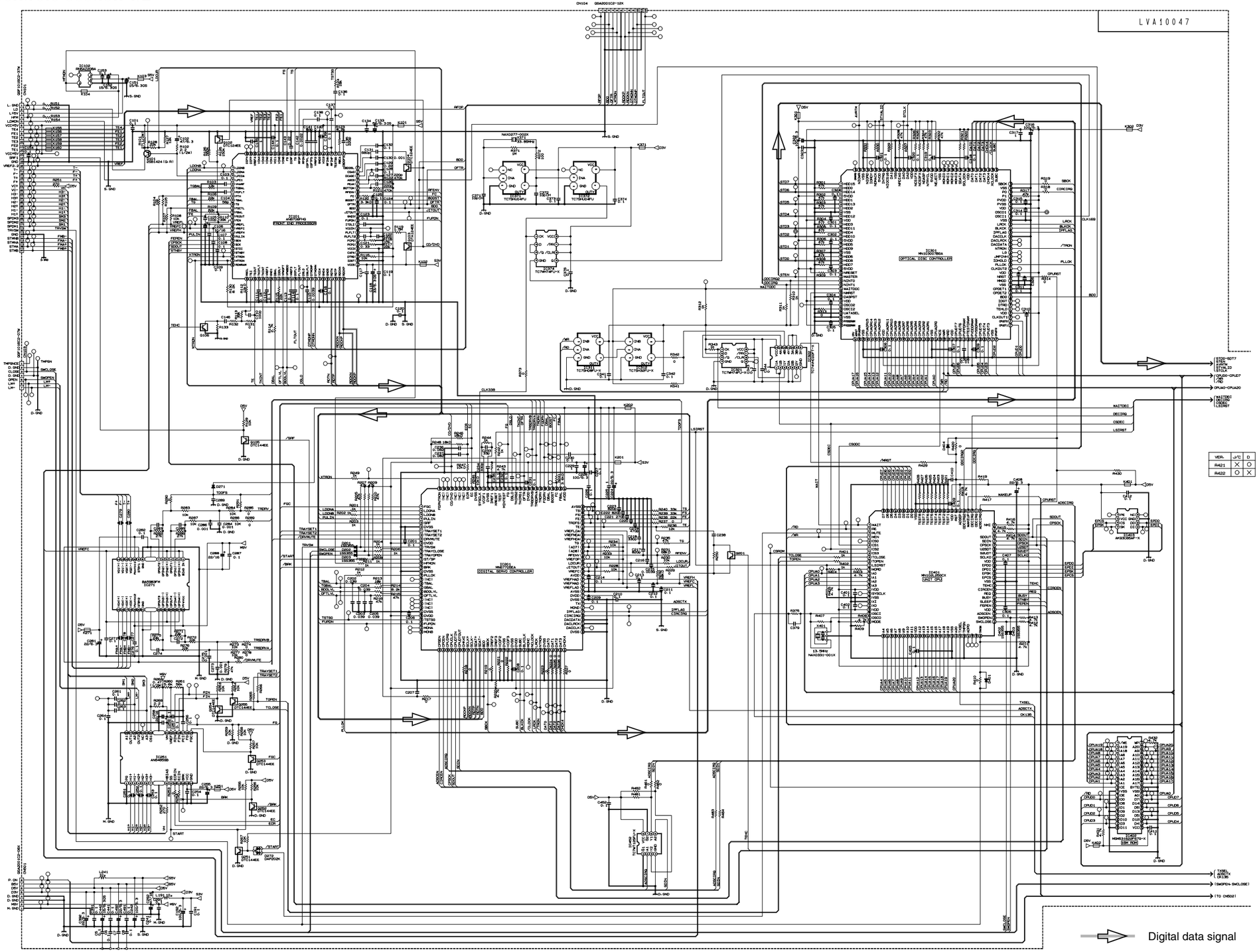
SEMICONDUCTORS LIST

KRA1267/YG/-T	Q231, Q232, Q233, Q234, Q236
2SA1037AK/RS/-X	Q201, Q202, Q203, Q204

⚠ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

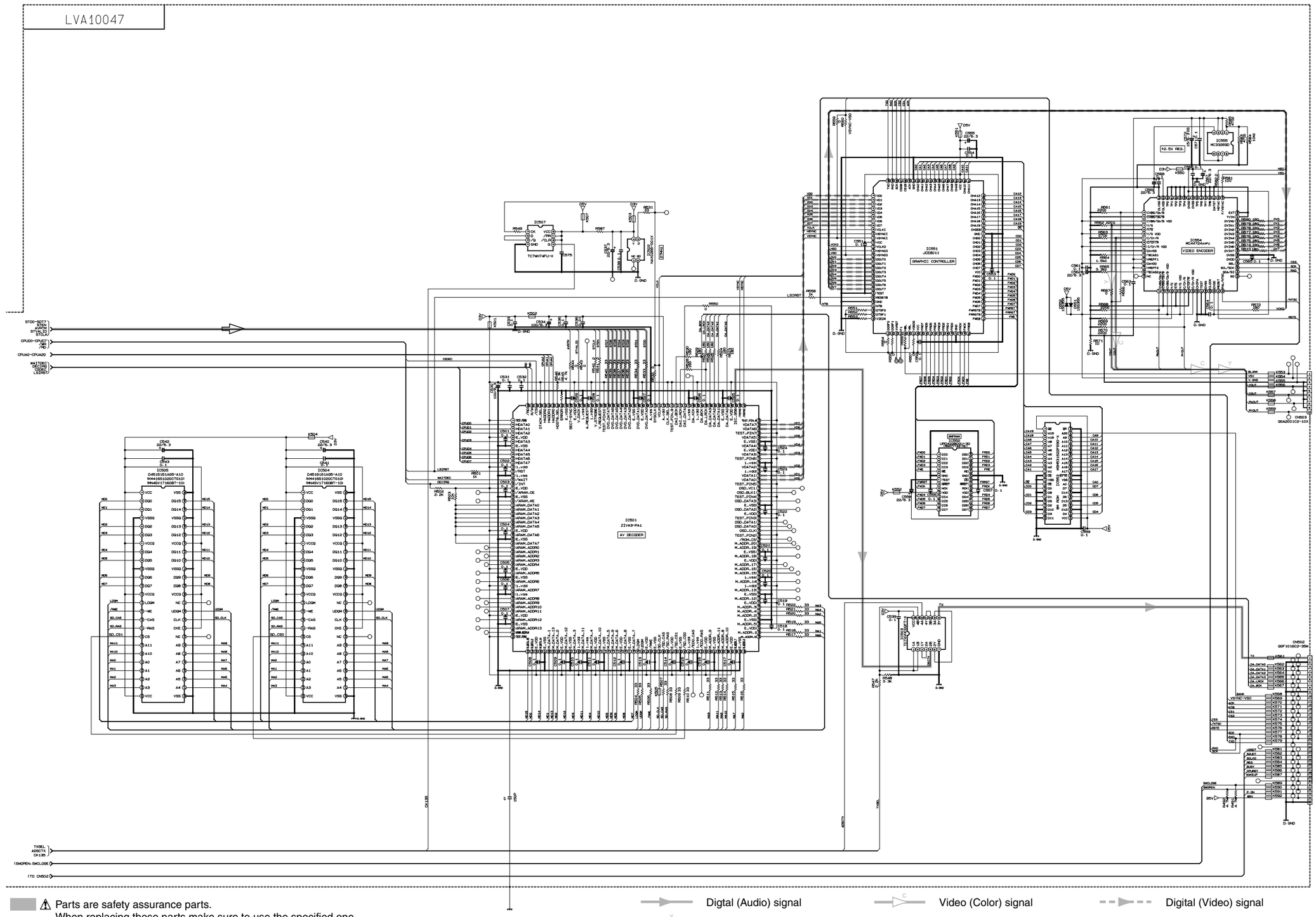
Video (Composite) signal　Video (Luminance) signal　Video (Color) signal

■ DVD Servo controlo section 1/2


LVA10047
FROM CN11 OF LVA10046 (SHEET 9/9)
FROM FLM-V3
TO CN6021
Digital data signal
⚠ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

VER.	µ/C	D
R421	×	○
R422	○	×

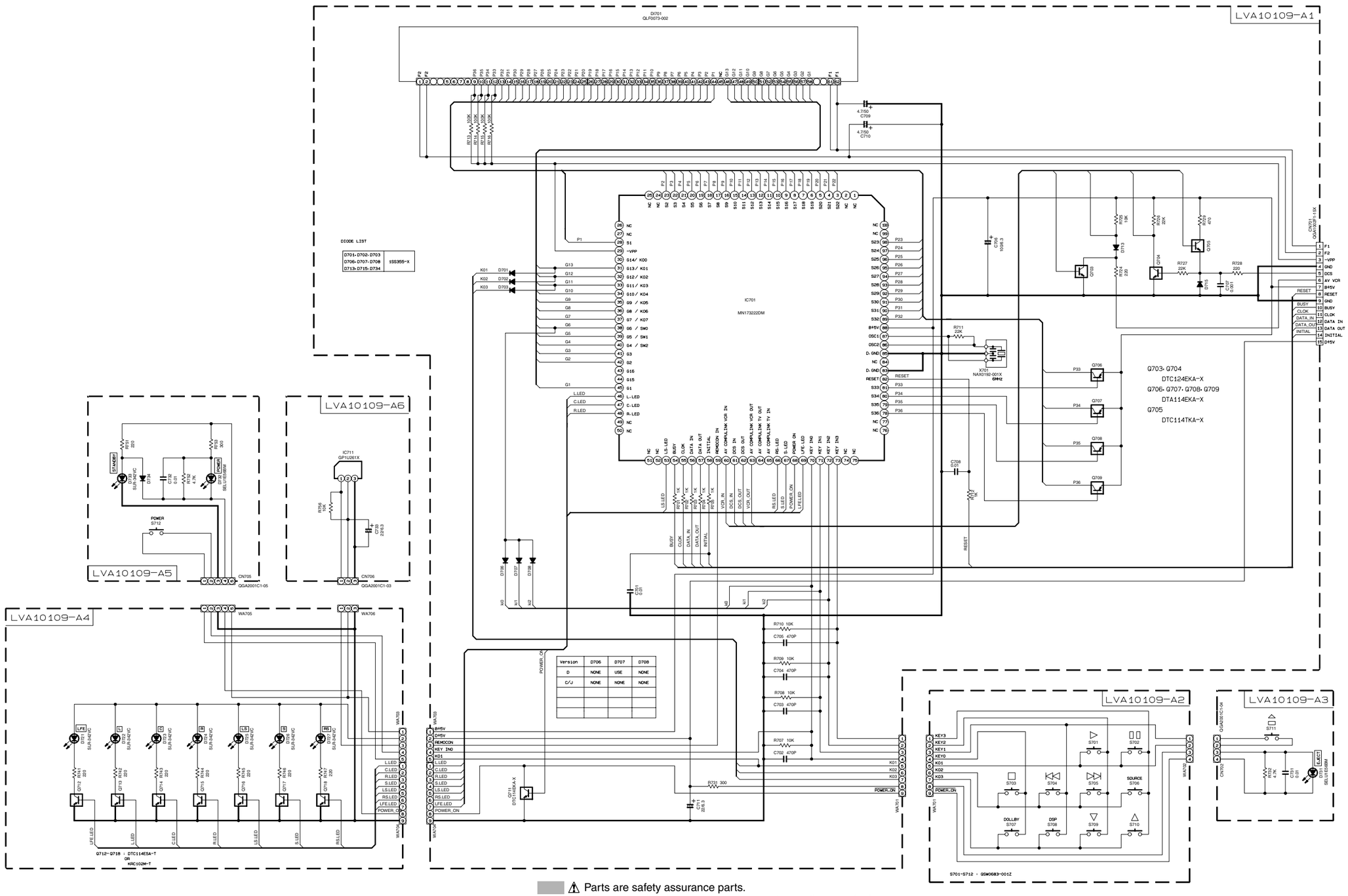
■ DVD Servo control section 2/2



⚠ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

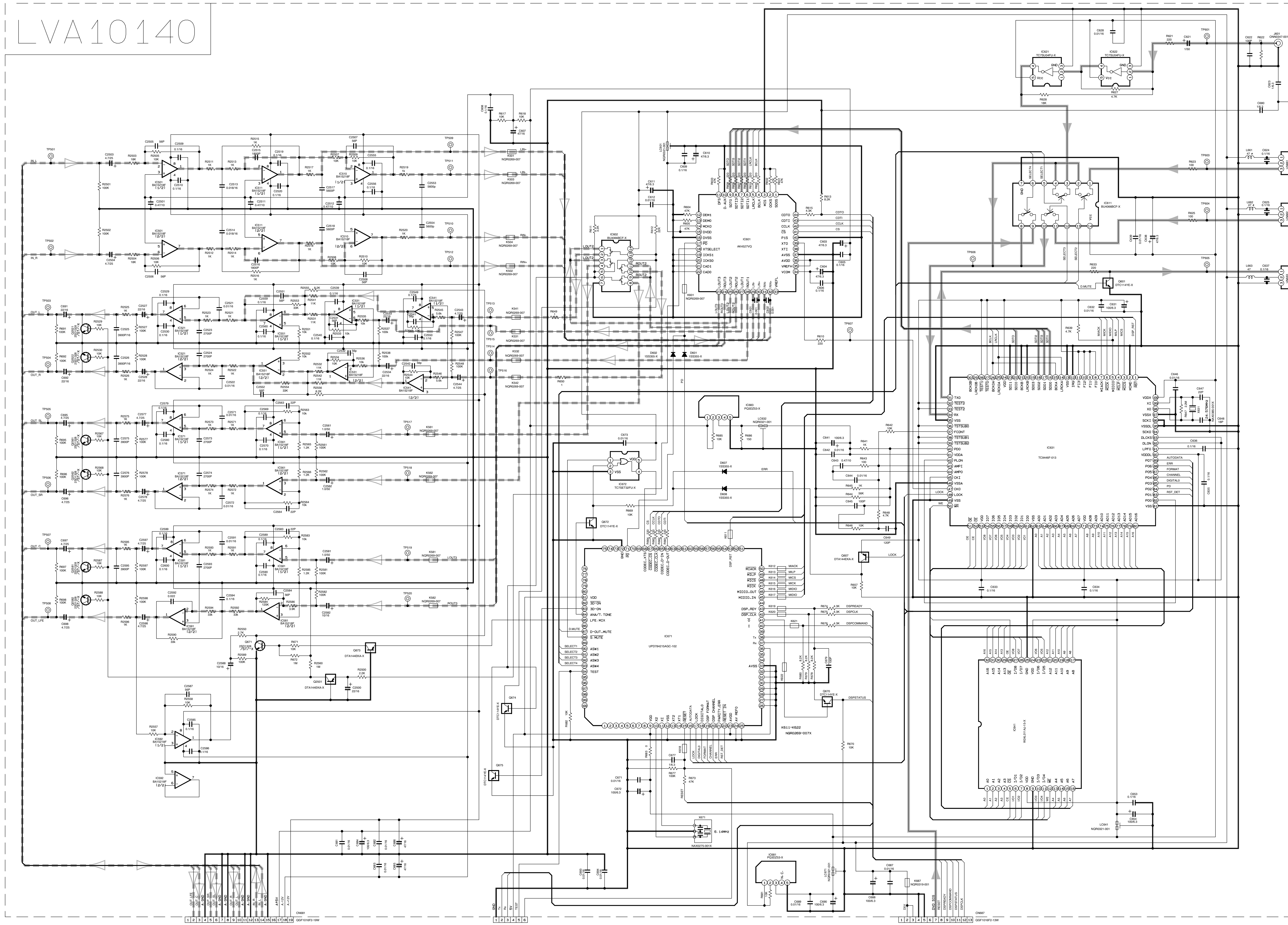
Digtal (Audio) signal
Video (Luminance) signal
Video (Color) signal
Digital data signal
Digital (Video) signal

■ Front circuit section



⚠ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

■ DSP control section

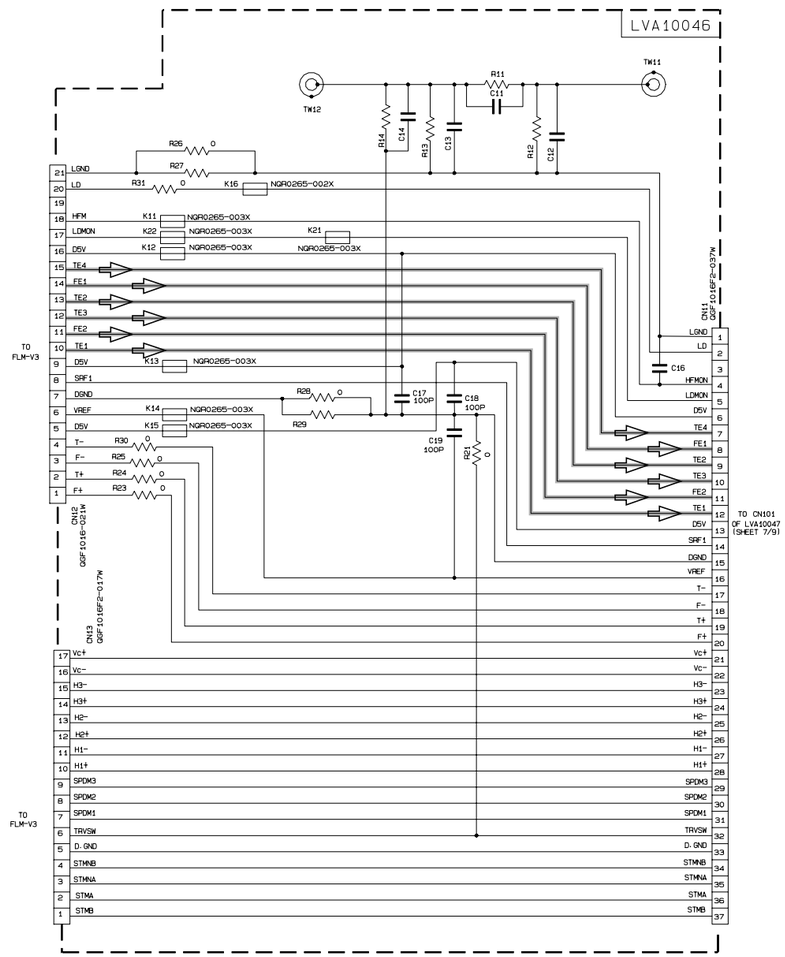

LVA10140
IN_L
IN_R
OUT_L
OUT_R
OUT_SL
OUT_SR
OUT_C
OUT_LFE
IC501 BA15218F
IC511 BA15218F
IC510 BA15218F
IC521 BA15218F
IC551 BA15218F
IC531 BA15218F
IC541 BA15218F
IC571 BA15218F
IC561 BA15218F
IC591 BA15218F
IC581 BA15218F
IC592 BA15218F
IC601 AK4527VQ
IC602 BU4066BCF-X
IC611 BU4066BCF-X
IC621 TC7SU04FU-X
IC622 TC7SU04FU-X
IC631 TC9446F-013
IC641 W24L011AJ-15-X
IC671 UPD784215AGC-102
IC672 TC7SET32FU-X
IC681 PQ3DZ53-X
IC683 PQ3DZ53-X
X631 24.576MHz
X671 6.14MHz
J601 ONN0347-001
AUX IN
MD IN
DBS IN
OPT OUT
UN661 GP1FA550RZ
UN662 GP1FA550RZ
UN663 GP1FA550TZ
K611~K622 NQR0269-007X
CN681 QGF1016F2-19W
CN687 QGF1016F2-13W
DVD SIG
RESET
DSPREADY
DSPCOMMAND
DSPSTATUS
DSPCLK

■ ⚠ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

Digital (Audio) signal

Audio signal

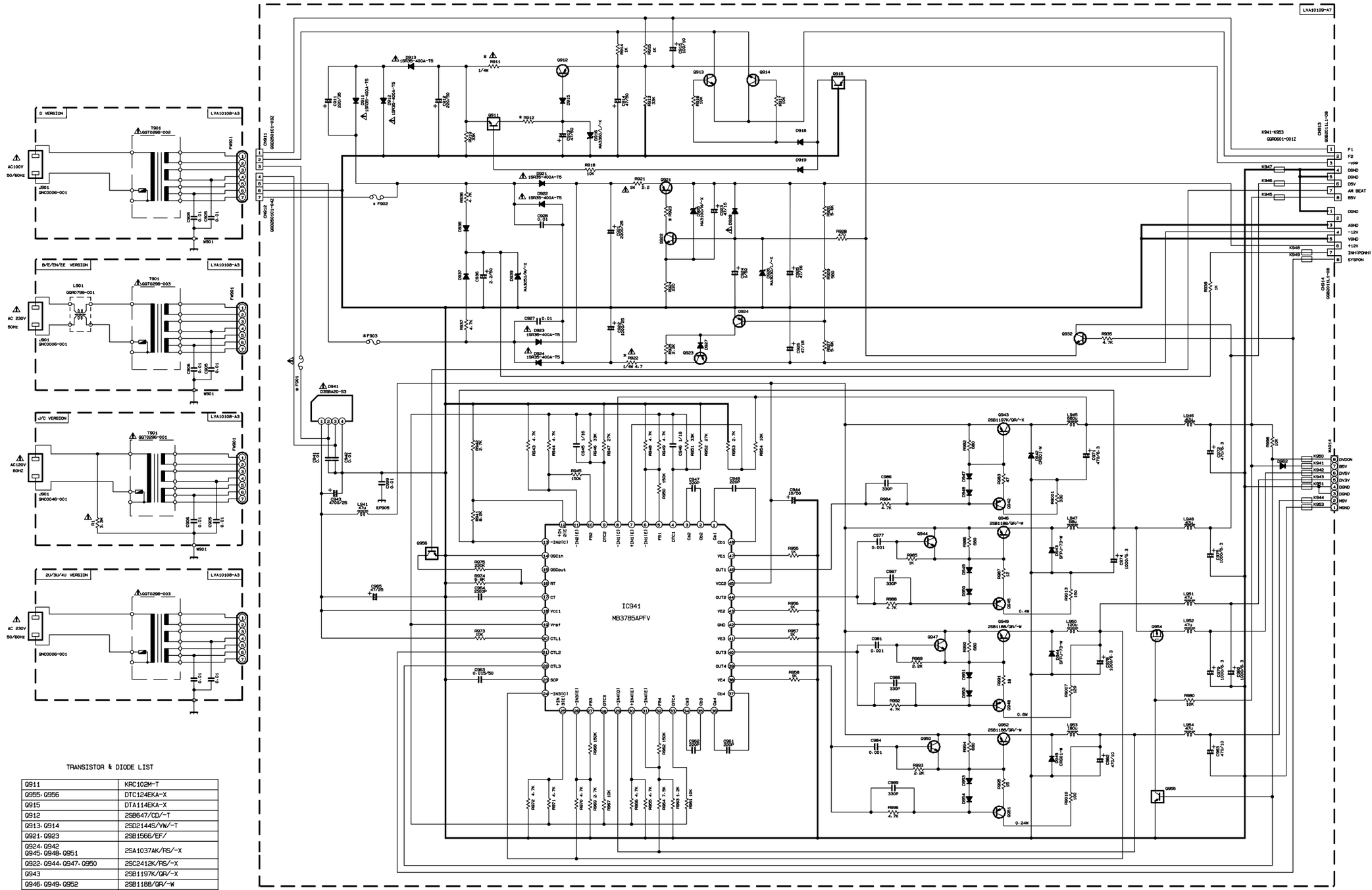
■ Connection circuit section



Digital data signal

⚠ Parts are safety assurance parts.
When replacing those parts make sure to use the specified one.

■ Power supply section



TRANSISTOR & DIODE LIST

Q911	KRC102M-T
Q955, Q956	DTC124EKA-X
Q915	DTA114EKA-X
Q912	2SB647/CD/-T
Q913, Q914	2SD2144S/VW/-T
Q921, Q923	2SB1566/EF/
Q924, Q942 Q945, Q948, Q951	2SA1037AK/RS/-X
Q922, Q944, Q947, Q950	2SC2412K/RS/-X
Q943	2SB1197K/QR/-X
Q946, Q949, Q952	2SB1188/QR/-W
D915, D918, D919, D927 D936, D937, D947 D948, D949, D950, D951, D952 D953, D954, D962	1SS355-X
Q954	SI2305DS-X
D928	1SS388-X

*

VERSION	R922	F902, F903	F901	R923	R911	R912
D, C, J	UNF RESISTOR	BUS WIRE	2A/125V	680	4.7 UNF RESISTOR	1K
B, E, EN, EE, 2U, 3U, 4U	FUSIBLE RESISTOR	T500mA	T2A	330	68 FUSIBLE RESISTOR	2.2K

■ Voltage value section

IC101

NO	DC(V)	NO	DC(V)
1	0V	51	3.2V
2	0V	52	1.3V
3	4.4V	53	4.9V
4	0V	54	0V
5	1.6V	55	4.9V
6	1.6V	56	0.5V
7	1.8V	57	1.2V
8	2.1V	58	2.2V
9	1.6V	59	2.2V
10	1.4V	60	2.2V
11	0.8V	61	1.5V
12	1.4V	62	1.6V
13	1.4V	63	0V
14	1.4V	64	1.4V
15	0.6V	65	0.2V
16	1.4V	66	0.2V
17	2.1V	67	1.5V
18	4.6V	68	1.4V
19	5.0V	69	1.3V
20	4.9V	70	2.2V
21	4.9V	71	2.1V
22	4.9V	72	1.0V
23	3.2V	73	2.2V
24	4.9V	74	2.9V
25	0V	75	3.4V
26	1.2V	76	3.4V
27	1.4V	77	1.1V
28	1.4V	78	2.1V
29	1.4V	79	2.1V
30	0V	80	2.1V
31	2.1V	81	4.9V
32	0V	82	0V
33	1.4V	83	2.1V
34	1.2V	84	3.3V
35	1.5V	85	3.3V
36	1.6V	86	2.0V
37	1.9V	87	2.1V
38	2.1V	88	1.4V
39	3.9V	89	2.2V
40	3.8V	90	1.4V
41	2.1V	91	2.0V
42	2.3V	92	2.1V
43	2.3V	93	4.9V
44	4.9V	94	2.1V
45	0V	95	2.1V
46	0V	96	2.1V
47	1.6V	97	2.1V
48	1.6V	98	2.1V
49	1.6V	99	2.1V
50	1.6V	100	2.1V

IC102

NO	DC(V)
1	0V
2	5.0V
3	0V
4	0V
5	0V

IC201

NO	DC(V)	NO	DC(V)	NO	DC(V)
1	3.2V	51	0V	101	1.4V
2	0V	52	3.2V	102	1.4V
3	0V	53	3.2V	103	1.4V
4	0V	54	0V	104	1.3V
5	0V	55	1.5V	105	1.2V
6	0V	56	0V	106	3.2V
7	3.2V	57	3.2V	107	0.2V
8	3.2V	58	3.2V	108	0.1V
9	3.2V	59	0V	109	0.2V
10	3.2V	60	1.4V	110	1.6V
11	3.2V	61	1.6V	111	2.7V
12	4.2V	62	1.6V	112	0V
13	3.2V	63	1.6V	113	0V
14	3.2V	64	1.5V	114	4.9V
15	0V	65	0V	115	2.4V
16	3.2V	66	0V	116	0V
17	0V	67	0V	117	1.2V
18	0V	68	0V	118	1.6V
19	1.6V	69	3.2V	119	0V
20	1.6V	70	0V	120	1.6V
21	1.6V	71	1.4V	121	1.6V
22	2.0V	72	3.2V	122	0V
23	1.6V	73	0V	123	0V
24	1.6V	74	3.2V	124	0V
25	1.6V	75	0V	125	0V
26	1.6V	76	0.6V	126	0V
27	0V	77	1.4V	127	0V
28	3.2V	78	2.1V	128	3.2V
29	0V	79	3.2V		
30	1.6V	80	1.4V		
31	___	81	1.5V		
32	___	82	1.8V		
33	5.0V	83	1.4V		
34	5.0V	84	1.4V		
35	3.2V	85	1.4V		
36	5.0V	86	1.4V		
37	5.0V	87	1.4V		
38	0V	88	2.1V		
39	0V	89	1.4V		
40	1.6V	90	0.6V		
41	1.6V	91	1.4V		
42	1.6V	92	1.4V		
43	1.6V	93	1.4V		
44	0.2V	94	1.4V		
45	0V	95	1.4V		
46	0V	96	0V		
47	3.2V	97	3.2V		
48	0V	98	1.4V		
49	0V	99	1.7V		
50	0V	100	1.6V		

IC251

NO	DC(V)
1	0V
2	5.0V
3	5.0V
4	5.0V
5	5.0V
6	5.0V
7	5.0V
8	5.0V
9	0V
10	2.2V
11	2.2V
12	0V
13	5.0V
14	0V
15	0V
16	2.7V
17	1.4V
18	5.0V
19	5.8V
20	8.5V
21	9.3V
22	9.3V
23	0V
24	0V
25	0V
26	0V
27	0V
28	0V

IC271

NO	DC(V)
1	1.4V
2	1.4V
3	1.4V
4	1.4V
5	1.4V
6	1.4V
7	1.4V
8	0V
9	3.2V
10	5.0V
11	2.5V
12	2.5V
13	2.5V
14	2.5V
15	___
16	___
17	___
18	___
19	10.3V
20	___
21	0V
22	___
23	___
24	___
25	___
26	___
27	___
28	10.3V

IC301

NO	DC(V)	NO	DC(V)	NO	DC(V)
1	5.0V	51	3.7V	101	1.6V
2	0V	52	3.6V	102	3.2V
3	5.0V	53	4.1V	103	0V
4	5.0V	54	1.2V	104	3.2V
5	0V	55	3.5V	105	3.2V
6	5.0V	56	0V	106	3.2V
7	5.0V	57	0.4V	107	0V
8	0V	58	5.0V	108	0V
9	5.0V	59	5.0V	109	3.2V
10	3.2V	60	4.6V	110	0V
11	5.0V	61	3.2V	111	1.5V
12	5.0V	62	2.7V	112	1.4V
13	5.0V	63	3.5V	113	1.7V
14	5.0V	64	4.0V	114	1.7V
15	5.0V	65	0V	115	1.4V
16	5.0V	66	3.2V	116	3.2V
17	5.0V	67	0V	117	3.2V
18	0V	68	1.9V	118	3.2V
19	0V	69	1.8V	119	0V
20	5.0V	70	1.4V	120	0V
21	0V	71	0V	121	0V
22	5.0V	72	2.0V	122	0V
23	5.0V	73	1.1V	123	0V
24	0V	74	0.9V	124	4.9V
25	5.0V	75	1.6V	125	5.0V
26	5.0V	76	3.2V	126	5.0V
27	5.0V	77	0V	127	0V
28	0V	78	3.2V	128	5.0V
29	0V	79	0V	129	5.0V
30	3.2V	80	0.2V	130	3.2V
31	3.2V	81	0V	131	2.5V
32	0V	82	0V	132	5.0V
33	0V	83	0V	133	0V
34	0V	84	0V	134	0V
35	0V	85	4.9V	135	5.0V
36	3.2V	86	3.2V	136	0V
37	0.1V	87	0V	137	0V
38	0.1V	88	0V	138	5.0V
39	0V	89	0V	139	5.0V
40	4.5V	90	0V	140	0V
41	4.6V	91	0V	141	2.8V
42	4.7V	92	3.2V	142	0V
43	1.5V	93	0V	143	5.0V
44	3.2V	94	3.2V	144	0V
45	3.9V	95	0V		
46	4.0V	96	3.2V		
47	0.7V	97	0V		
48	3.8V	98	3.2V		
49	1.1V	99	0V		
50	4.5V	100	1.6V		

IC311

NO	DC(V)
1	5.0V
2	4.6V
3	0V
4	4.7V
5	5.0V

IC312

NO	DC(V)
1	5.0V
2	4.7V
3	0V
4	5.0V
5	5.0V

IC321

NO	DC(V)
1	5.0V
2	5.0V
3	5.0V
4	0V
5	0V
6	0V
7	5.0V
8	5.0V

IC322

NO	DC(V)
1	5.0V
2	5.0V
3	0V
4	0V
5	0V
6	5.0V
7	0V
8	5.0V
9	0V
10	0V
11	0V
12	5.0V
13	5.0V
14	5.0V

IC371

NO	DC(V)
1	0V
2	1.5V
3	0V
4	1.4V
5	3.2V

IC372

NO	DC(V)
1	0V
2	1.4V
3	0V
4	1.6V
5	3.2V

IC374

NO	DC(V)
1	1.6V
2	1.5V
3	1.5V
4	0V
5	1.6V
6	3.2V
7	3.2V
8	3.2V

IC401

NO	DC(V)	NO	DC(V)
1	5.0V	51	0.6V
2	5.0V	52	5.0V
3	5.0V	53	5.0V
4	5.0V	54	5.0V
5	0V	55	5.0V
6	5.0V	56	5.0V
7	5.0V	57	0V
8	4.4V	58	0V
9	0V	59	5.0V
10	0V	60	0V
11	4.9V	61	0V
12	5.0V	62	0V
13	___	63	0V
14	___	64	0V
15	___	65	0V
16	___	66	5.0V
17	5.0V	67	4.8V
18	2.3V	68	___
19	0V	69	___
20	0V	70	5.0V
21	5.0V	71	0V
22	5.0V	72	5.0V
23	2.4V	73	5.0V
24	2.4V	74	5.0V
25	5.0V	75	5.0V
26	0V	76	5.0V
27	___	77	5.0V
28	0V	78	3.1V
29	___	79	0V
30	___	80	5.0V
31	0V	81	5.0V
32	___	82	4.9V
33	0V	83	5.0V
34	5.0V	84	5.0V
35	1.5V	85	0V
36	4.7V	86	0V
37	0.1V	87	0V
38	0.1V	88	5.0V
39	0V	89	5.0V
40	0V	90	5.0V
41	0V	91	5.0V
42	0V	92	0V
43	0V	93	0.9V
44	0V	94	1.0V
45	0V	95	2.0V
46	0V	96	1.4V
47	0V	97	1.8V
48	0V	98	1.9V
49	0V	99	3.5V
50	5.0V	100	2.7V

IC402

NO	DC(V)
1	5.0V
2	0V
3	3.9V
4	1.5V
5	3.0V
6	2.7V
7	2.2V
8	2.2V
9	2.4V
10	2.5V
11	2.4V
12	0.7V
13	0V
14	2.0V
15	1.7V
16	0V
17	0.7V
18	0V
19	2.0V
20	0V
21	0V
22	0V
23	5.0V
24	2.0V
25	0V
26	2.4V
27	0V
28	2.9V
29	0V
30	2.7V
31	2.2V
32	0V
33	0V
34	0V
35	3.4V
36	0.7V
37	0.7V
38	4.4V
39	1.1V
40	4.0V
41	3.4V
42	3.6V
43	0V
44	0V

IC403

NO	DC(V)
1	4.9V
2	5.0V
3	0V
4	0V
5	0V
6	1.0V
7	0V
8	0V

IC452

NO	DC(V)
1	0V
2	3.2V
3	0V
4	0V
5	0V
6	5.0V
7	0V
8	5.0V

IC501

NO	DC(V)	NO	DC(V)	NO	DC(V)	NO	DC(V)
1	3.1V	53	0.7V	105	0V	157	0.9V
2	1.7V	54	0.7V	106	0V	158	0.9V
3	0.7V	55	3.1V	107	3.1V	159	0V
4	2.0V	56	0.6V	108	0V	160	3.1V
5	3.1V	57	0V	109	0V	161	0V
6	1.6V	58	0.6V	110	0V	162	0V
7	0V	59	0.5V	111	0V	163	0V
8	0V	60	0.5V	112	0V	164	0V
9	2.4V	61	3.1V	113	3.1V	165	0V
10	2.9V	62	0.6V	114	0V	166	0V
11	2.6V	63	0V	115	0V	167	0V
12	3.1V	64	0.6V	116	0V	168	3.1V
13	5.0V	65	3.1V	117	3.1V	169	0.9V
14	0V	66	0.7V	118	0V	170	0V
15	5.0V	67	0V	119	0V	171	0V
16	3.1V	68	0.7V	120	0V	172	1.6V
17	3.1V	69	3.1V	121	0V	173	1.6V
18	3.1V	70	0.6V	122	0V	174	3.1V
19	0V	71	0V	123	3.1V	175	3.1V
20	3.1V	72	0.7V	124	0V	176	3.1V
21	3.1V	73	0.7V	125	0V	177	1.6V
22	3.1V	74	0.6V	126	0V	178	3.1V
23	3.1V	75	3.1V	127	0V	179	0V
24	3.1V	76	0.7V	128	0.8V	180	5.0V
25	3.1V	77	0V	129	3.1V	181	3.1V
26	3.1V	78	0.8V	130	3.1V	182	5.0V
27	3.1V	79	3.2V	131	0V	183	0V
28	3.1V	80	3.2V	132	0.8V	184	5.0V
29	0V	81	3.1V	133	3.1V	185	5.0V
30	3.1V	82	3.2V	134	3.1V	186	5.0V
31	0V	83	0V	135	0.8V	187	5.0V
32	0V	84	0V	136	0V	188	5.0V
33	0V	85	3.2V	137	0.8V	189	5.0V
34	0V	86	0V	138	3.1V	190	3.1V
35	3.1V	87	3.1V	139	0.8V	191	3.1V
36	3.1V	88	0V	140	0.8V	192	2.6V
37	0V	89	0V	141	3.1V	193	3.1V
38	0V	90	3.1V	142	0.9V	194	0V
39	0V	91	3.1V	143	0.9V	195	0V
40	3.1V	92	3.1V	144	3.1V	196	0V
41	3.1V	93	0V	145	0.9V	197	3.1V
42	0V	94	3.1V	146	0V	198	5.0V
43	3.1V	95	3.1V	147	3.1V	199	0V
44	0V	96	0V	148	0.9V	200	0V
45	3.1V	97	0V	149	3.1V	201	3.1V
46	3.1V	98	0V	150	0.9V	202	2.2V
47	0V	99	0V	151	0V	203	2.4V
48	3.1V	100	0V	152	0.9V	204	2.5V
49	0V	101	3.1V	153	3.1V	205	3.1V
50	3.1V	102	0V	154	0.9V	206	5.0V
51	0V	103	0V	155	0.9V	207	5.0V
52	3.1V	104	0V	156	3.1V	208	2.0V

IC502

NO	DC(V)
1	3.1V
2	0V
3	1.6V
4	3.2V

IC503

NO	DC(V)
1	0V
2	0V
3	3.2V
4	3.2V
5	1.6V
6	1.6V
7	0V
8	1.6V
9	1.6V
10	3.2V
11	3.2V
12	3.2V
13	0V
14	3.2V

IC504

NO	DC(V)
1	3.2V
2	0V
3	0V
4	0V
5	0V
6	0.3V
7	3.2V
8	0V
9	0V
10	0V
11	0V
12	0V
13	3.2V
14	0V
15	3.1V
16	3.1V
17	3.1V
18	2.3V
19	0V
20	0V
21	0V
22	3.1V
23	3.1V
24	0V
25	3.2V
26	0V
27	3.1V
28	0V
29	3.1V
30	0V
31	3.1V
32	0V
33	0V
34	3.2V
35	1.7V
36	0V
37	0V
38	3.2V
39	0V
40	0V
41	0V
42	0V
43	0V
44	3.2V
45	0V
46	0V
47	0V
48	0V
49	0V
50	0V

IC505

NO	DC(V)
1	3.2V
2	0V
3	0V
4	0V
5	0V
6	0.3V
7	3.2V
8	0V
9	0V
10	0V
11	0V
12	0V
13	3.2V
14	0V
15	3.1V
16	3.1V
17	3.1V
18	2.3V
19	0V
20	0V
21	0V
22	3.1V
23	3.1V
24	0V
25	3.2V
26	0V
27	3.1V
28	0V
29	3.1V
30	0V
31	3.1V
32	0V
33	0V
34	3.2V
35	1.7V
36	0V
37	0V
38	3.2V
39	0V
40	0V
41	0V
42	0V
43	0V
44	3.2V
45	0V
46	0V
47	0V
48	0V
49	0V
50	0V

IC551

NO	DC(V)	NO	DC(V)
1	0V	51	0V
2	0V	52	5.0V
3	0V	53	0V
4	0V	54	0V
5	1.7V	55	0V
6	0V	56	0V
7	0V	57	0V
8	1.7V	58	0V
9	1.7V	59	0V
10	2.7V	60	0V
11	3.1V	61	0V
12	5.0V	62	5.0V
13	2.3V	63	4.4V
14	4.6V	64	4.4V
15	5.0V	65	4.4V
16	0V	66	4.4V
17	0V	67	4.4V
18	0V	68	4.4V
19	0V	69	4.4V
20	2.3V	70	4.4V
21	0V	71	0V
22	0V	72	4.8V
23	2.3V	73	0.7V
24	0V	74	0.7V
25	5.0V	75	0V
26	0V	76	0.7V
27	0V	77	0V
28	0V	78	0V
29	0V	79	0V
30	0V	80	0V
31	5.0V	81	0V
32	5.0V	82	0V
33	5.0V	83	5.0V
34	2.5V	84	0V
35	0V	85	0.5V
36	0V	86	0V
37	5.0V	87	0V
38	5.0V	88	0.3V
39	5.0V	89	0.3V
40	0V	90	0.3V
41	0V	91	0.3V
42	0V	92	0.3V
43	0V	93	0.3V
44	0V	94	0V
45	0V	95	0V
46	0V	96	4.9V
47	0V	97	4.9V
48	2.2V	98	4.9V
49	2.3V	99	5.0V
50	5.0V	100	5.0V

IC552

NO	DC(V)
1	0V
2	0V
3	0V
4	0V
5	0V
6	0V
7	0V
8	0V
9	0V
10	5.0V
11	0V
12	0V
13	0V
14	0V
15	5.0V
16	0V
17	0V
18	0V
19	5.0V
20	2.2V
21	5.0V
22	0V
23	0V
24	5.0V
25	0V
26	0V
27	0V
28	0V

IC553

NO	DC(V)
1	5.0V
2	0.7V
3	0.7V
4	0.5V
5	0V
6	0V
7	0.3V
8	0.3V
9	0.3V
10	0.3V
11	0.3V
12	0V
13	0V
14	4.6V
15	4.4V
16	0V
17	4.4V
18	0V
19	4.4V
20	0V
21	4.4V
22	0V
23	5.0V
24	4.4V
25	0V
26	4.4V
27	0V
28	4.4V
29	0V
30	4.4V
31	0.3V
32	0V
33	0V
34	0V
35	0.7V
36	0V
37	0V
38	0V
39	0V
40	0V
41	0V
42	0V
43	0V
44	0V

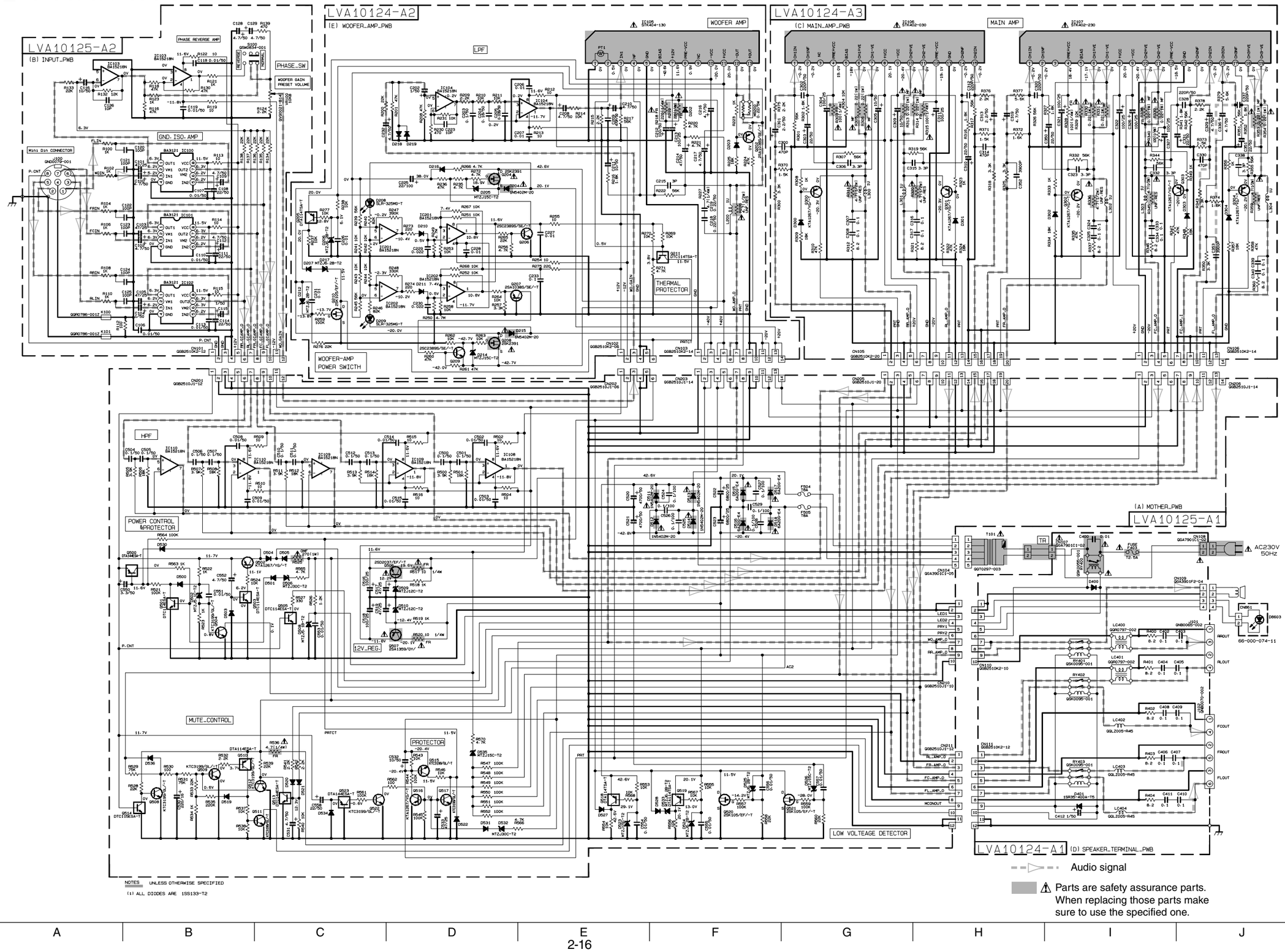
IC554

NO	DC(V)	NO	DC(V)
1	0V	51	0V
2	0V	52	0V
3	5.1V	53	0V
4	0V	54	0V
5	0V	55	0V
6	5.1V	56	0V
7	0V	57	0.6V
8	0V	58	0V
9	5.1V	59	0V
10	0V	60	0V
11	0V	61	0V
12	2.5V	62	0V
13	5.1V	63	5.1V
14	2.5V	64	0V
15	2.5V	65	
16	0V	66	
17	0.9V	67	
18	0V	68	
19	5.1V	69	
20	0.4V	70	
21	0V	71	
22	5.1V	72	
23	0.9V	73	
24	0V	74	
25		75	
26	0V	76	
27	0V	77	
28	0V	78	
29	1.3V	79	
30	1.3V	80	
31	0V	81	
32	0V	82	
33	0.9V	83	
34	1.3V	84	
35	2.1V	85	
36	1.3V	86	
37	0.6V	87	
38	0V	88	
39	0V	89	
40	0V	90	
41	0V	91	
42	0V	92	
43	0V	93	
44	0V	94	
45	0V	95	
46	0V	96	
47	0V	97	
48	0V	98	
49	1.3V	99	
50	1.3V	100	

IC555

NO	DC(V)
1	0V
2	2.5V
3	2.5V
4	5.0V
5	0V
6	2.5V
7	2.5V
8	0V

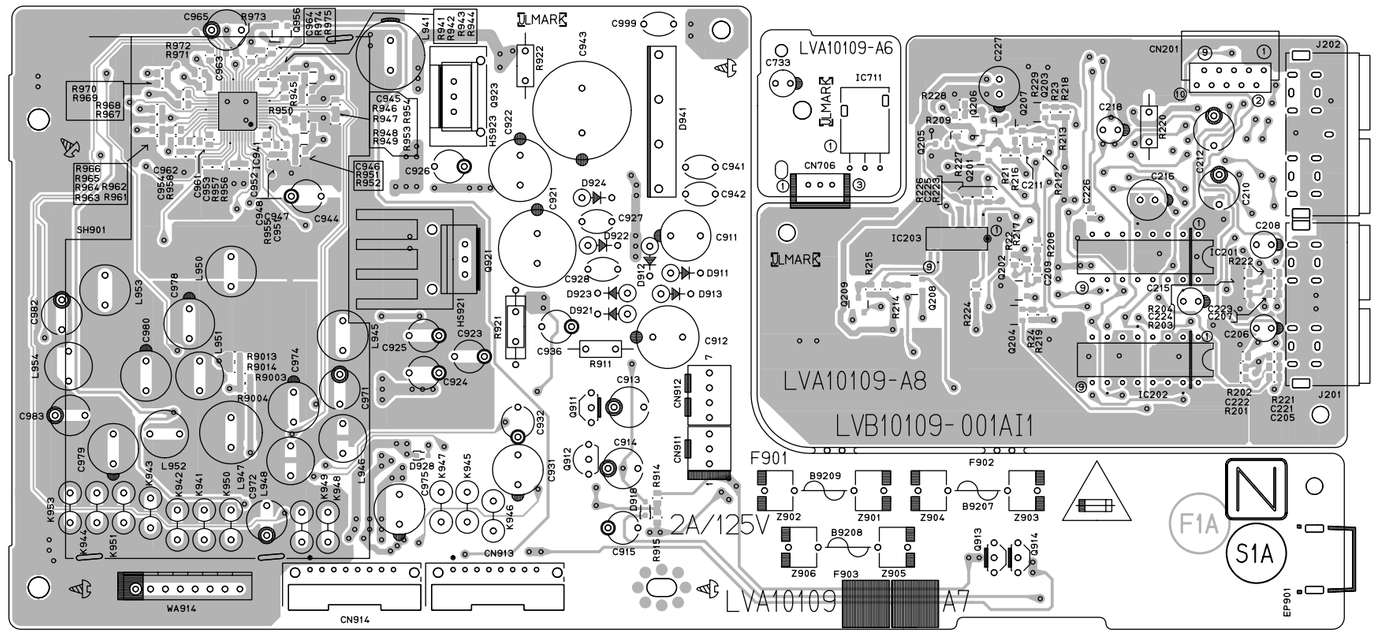
■ Powered subwoofer section



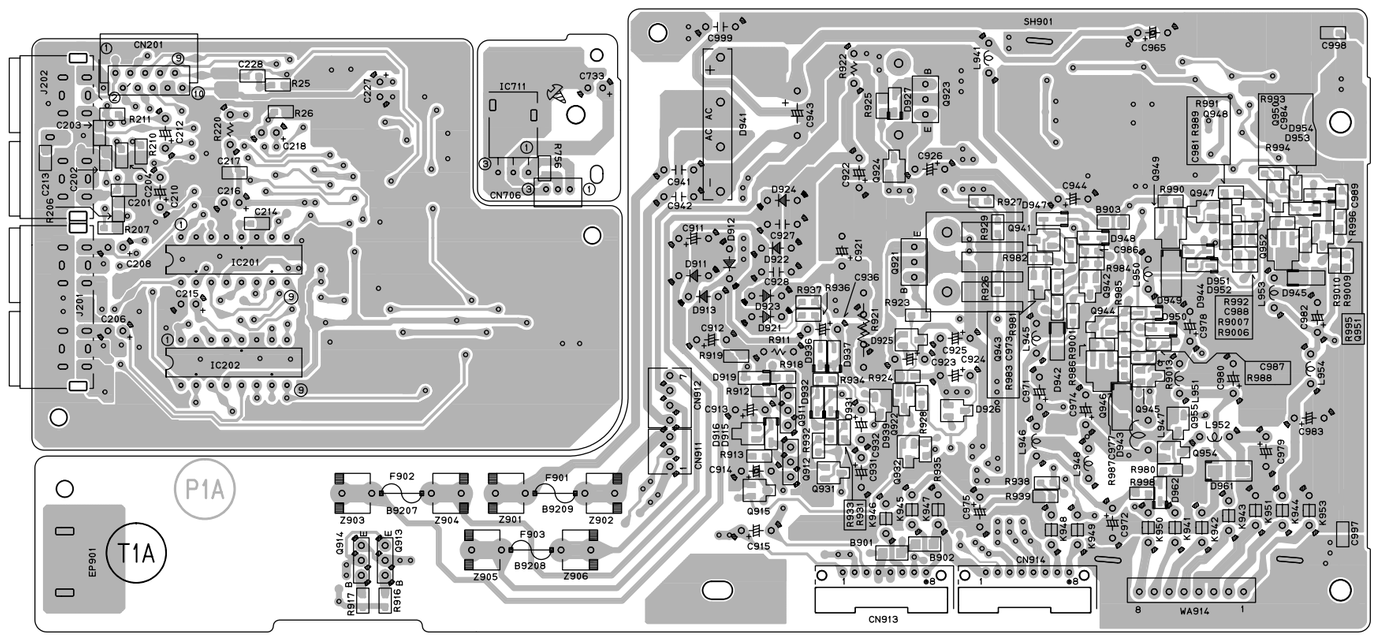
Printed circuit boards

■ Power supply board

(Surface side view)

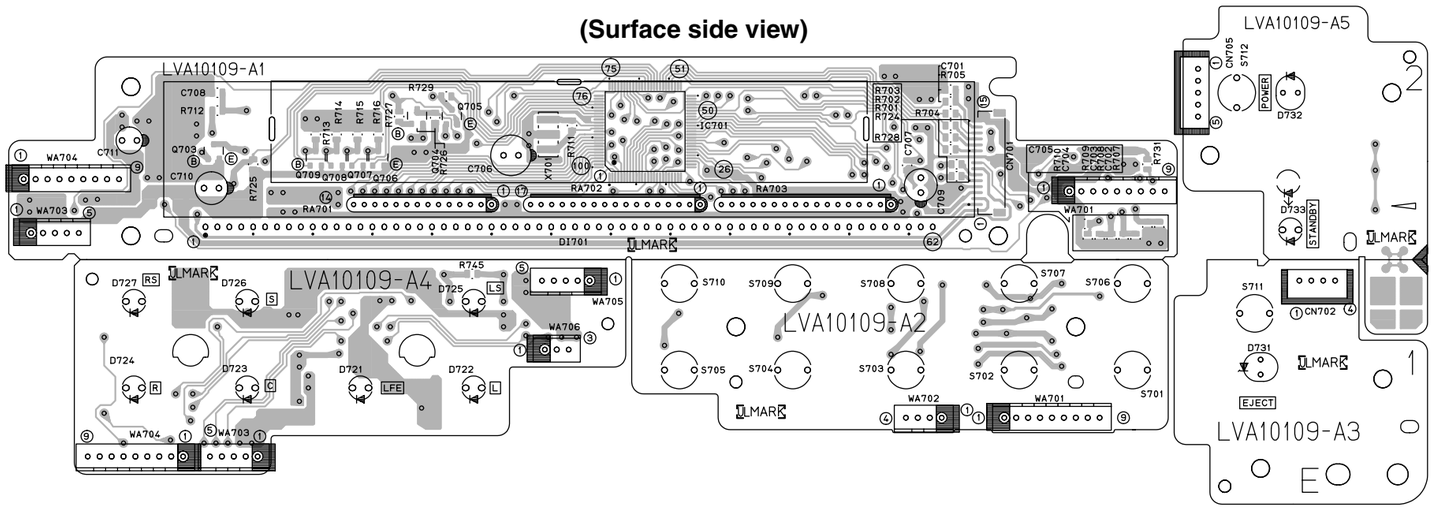


(Bottom side view)

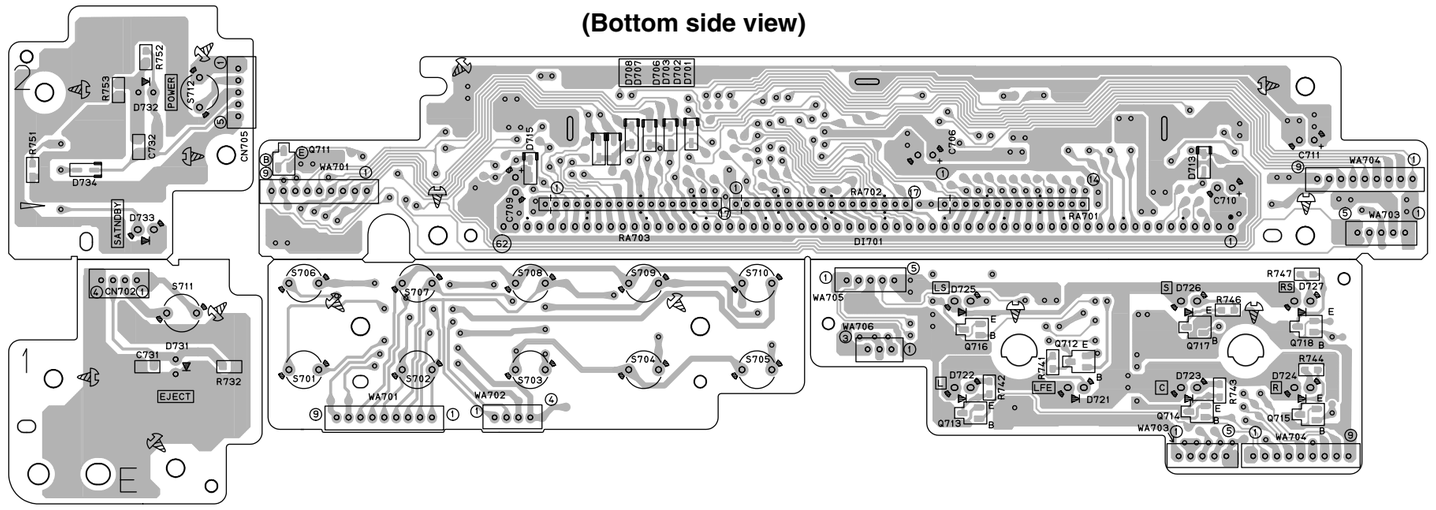


■ Front panel board

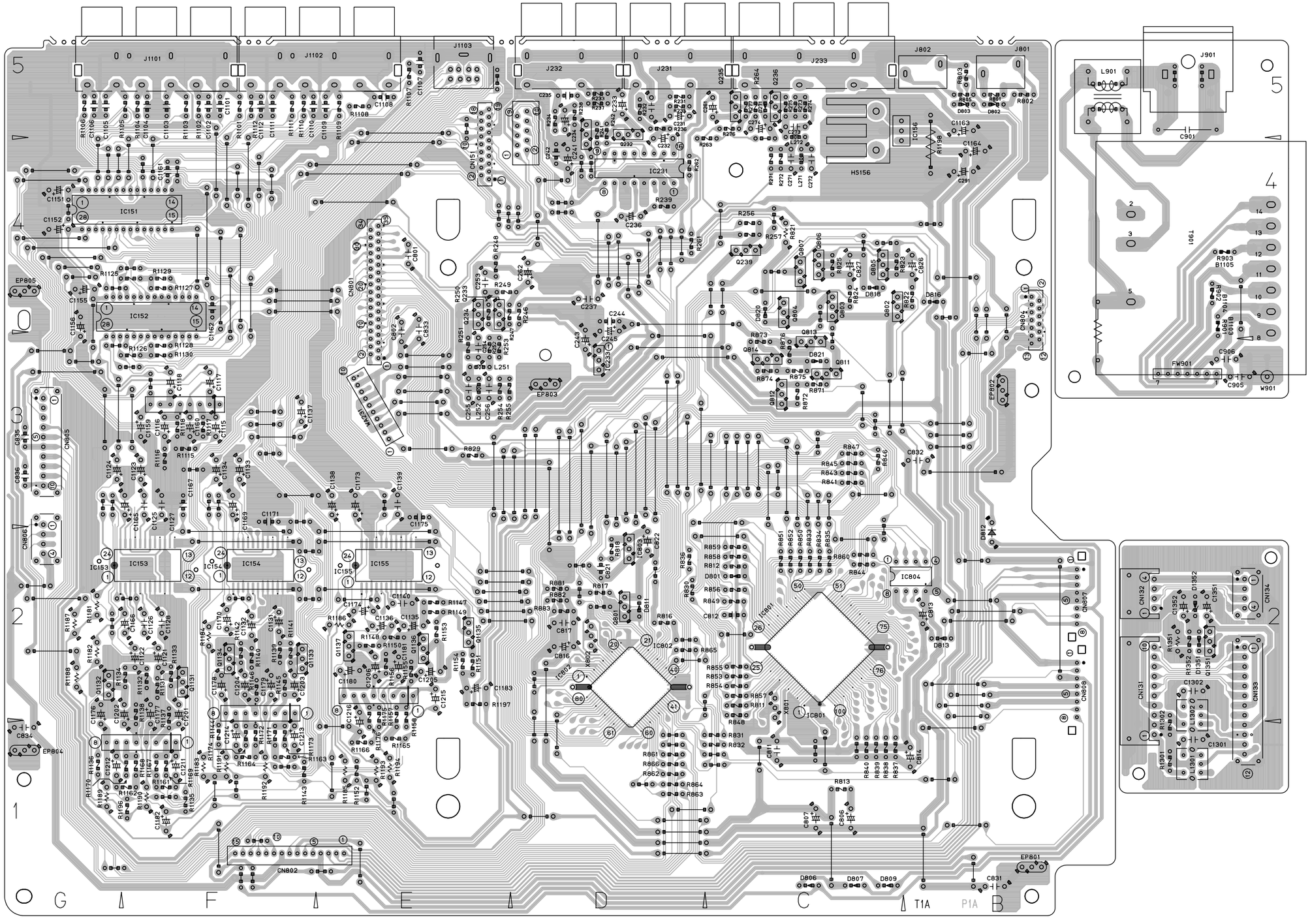
(Surface side view)



(Bottom side view)

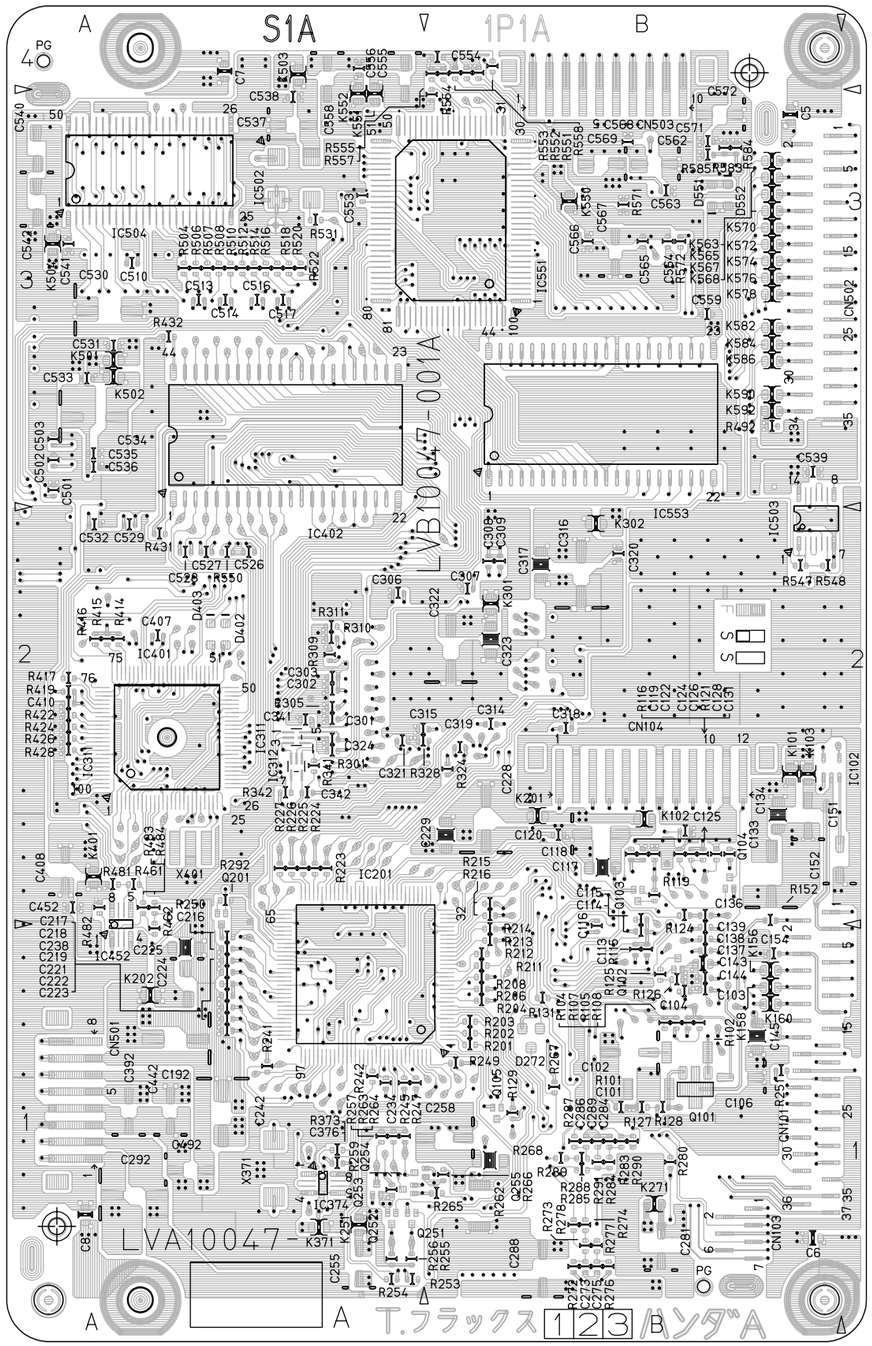


■ Audio/Video board

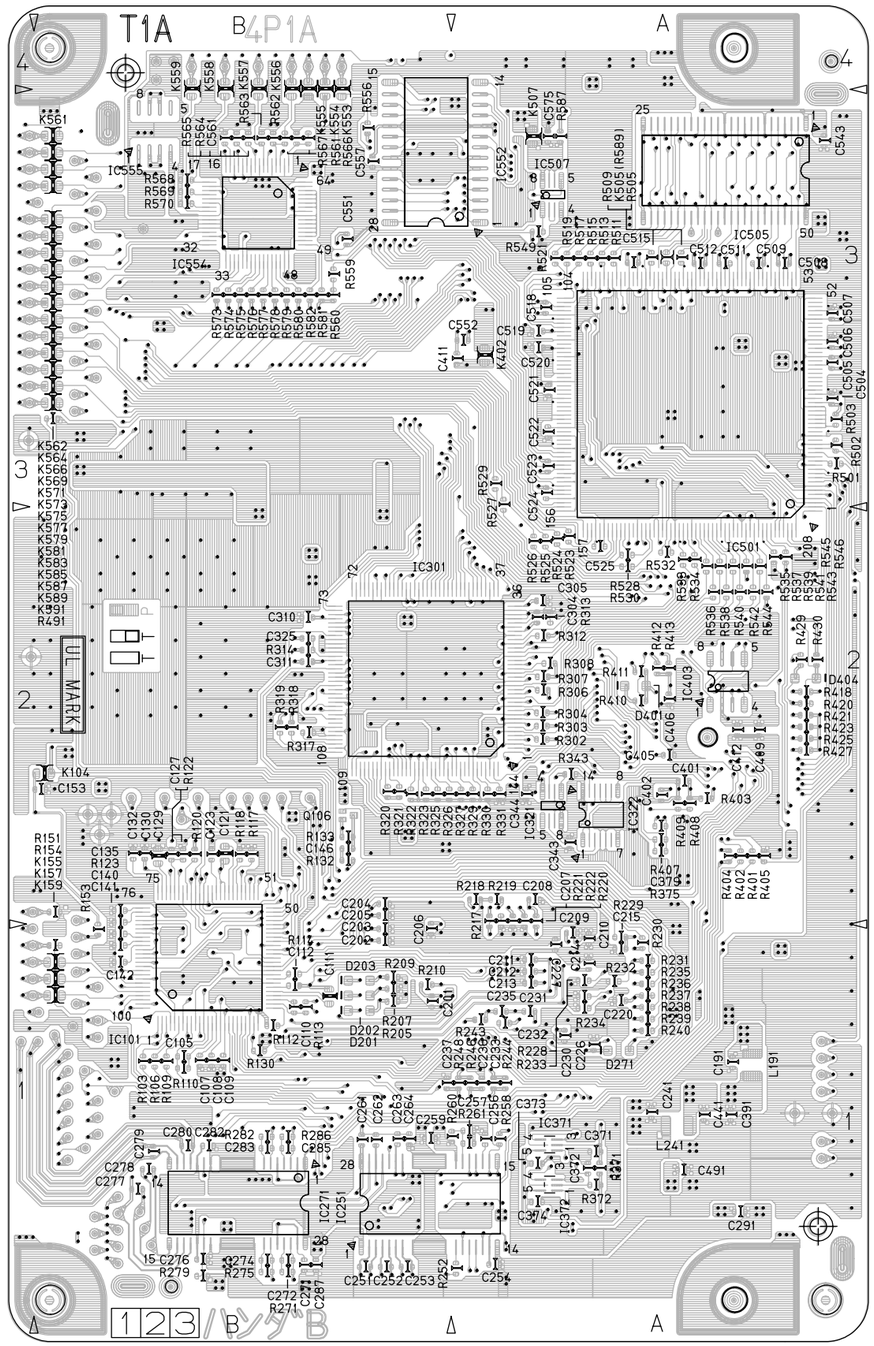


■ Main board

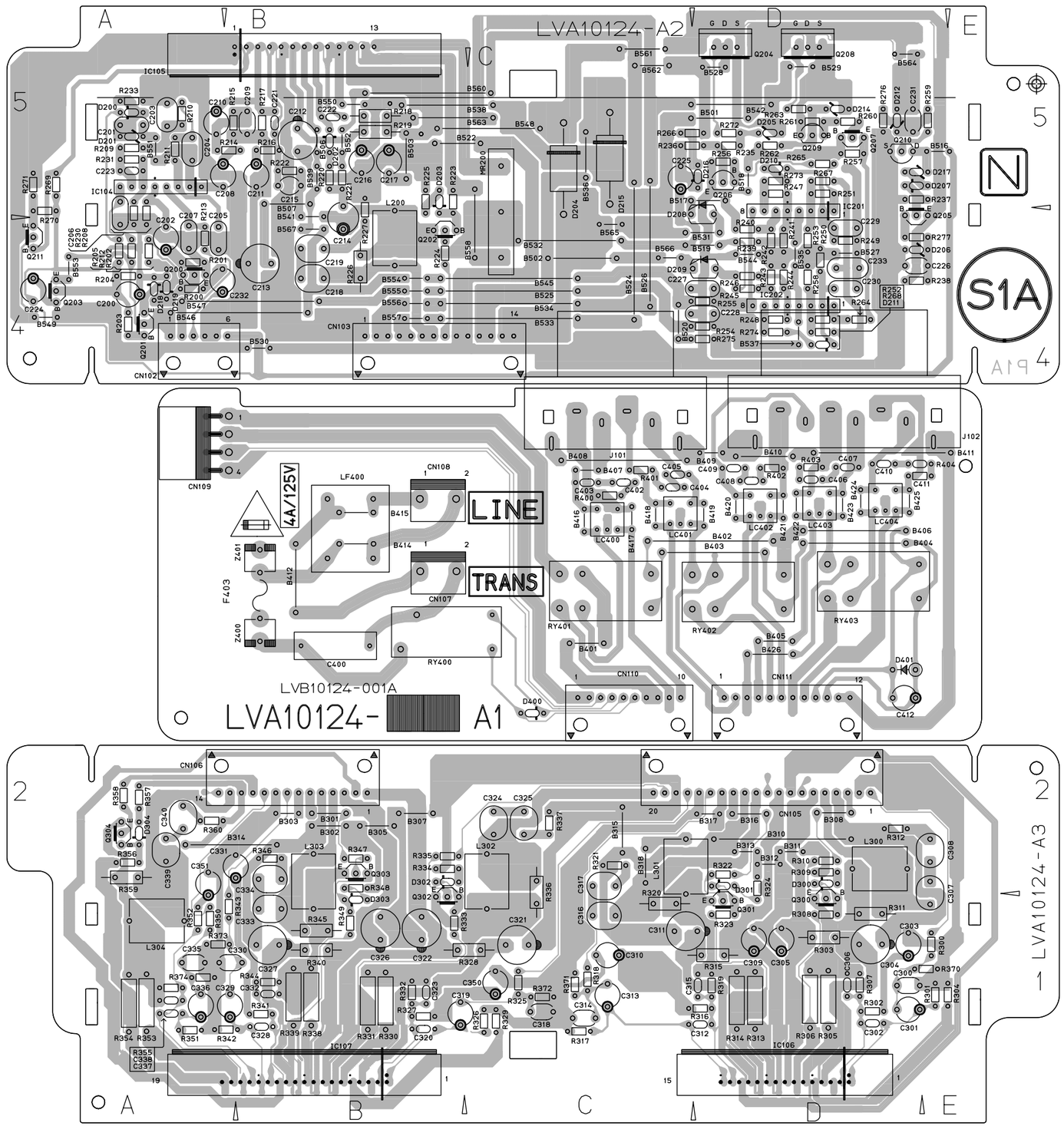
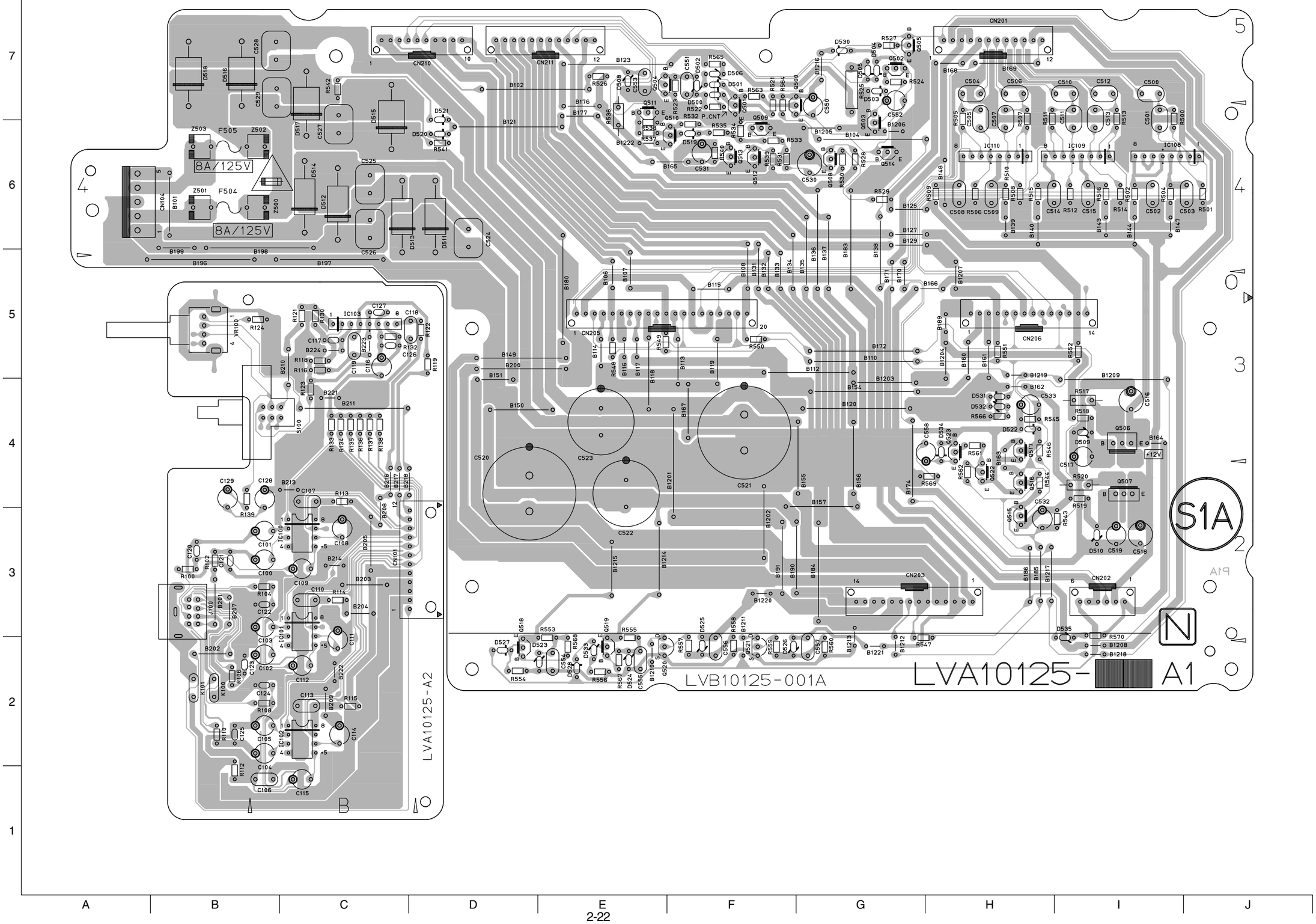
(Surface side view)



(Bottom side view)



■ Powered subwoofer board (SP-PWA10) 1/2



■ Powered subwoofer board (SP-PWA10) 2/2